

76 00389

Series B

Dec. 23, 1975

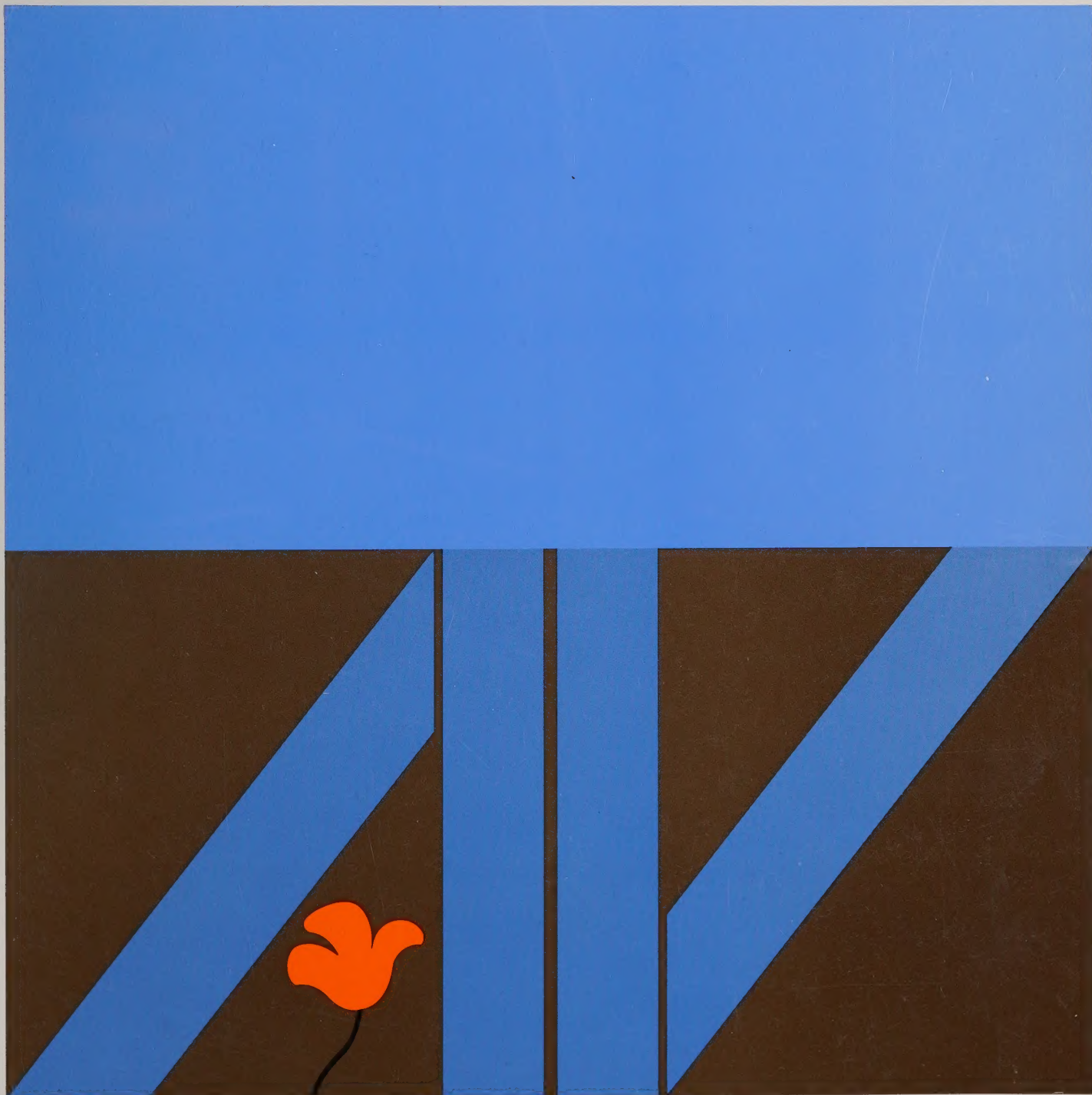
AVEK

Antelope Valley-East Kern  
Water Agency


\$19,000,000

1975 Water Bonds, Series B

General Obligation



Sale: January 27, 1976  
Bartle Wells Associates



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# ANTELOPE VALLEY-EAST KERN WATER AGENCY

Kern, Los Angeles and Ventura Counties, California

Formed September 9, 1959

554 West Lancaster Boulevard  
Lancaster, California 93534

## BOARD OF DIRECTORS

Ruel G. Williams, *President*

Ernest Coleal

S. Joseph Hunt

Carl B. Hunter, Jr.

William V. Ralston

Ralph R. Ritter

C. D. Smith, *Vice President*

Wallace G. Spinarski, *General Manager*

Boyle Engineering Corporation, *Consulting Engineers*

O'Melveny & Myers, *Bond Counsel*

The Bonds are offered subject to the unqualified approving opinion of Messrs. O'Melveny & Myers, Bond Counsel, Los Angeles, California, as to the validity of the Bonds (see "Legal Opinion").

Bartle Wells Associates, *Financing Consultants*

## PAYING AGENTS

Bank of America, N.T. & S.A., Los Angeles

First National City Bank, New York

Harris Trust & Savings Bank, Chicago

Bids for Antelope Valley-East Kern Water Agency Bonds will be received on behalf of the agency at 11:00 a.m., Tuesday, January 27, 1976, at Conference Room A, Bank of America N.T. & S.A., Corporate Agency Division, 111 West Seventh Street, Los Angeles, California.

Data in this statement were obtained from sources believed current and reliable. Estimates and opinions are included and should not be interpreted as statements of fact.

December 23, 1975

Official statement prepared by  
BARTLE WELLS ASSOCIATES  
Municipal Financing Consultants  
Shell Building Penthouse, 100 Bush Street  
San Francisco, California 94104  
(415) 981-5751

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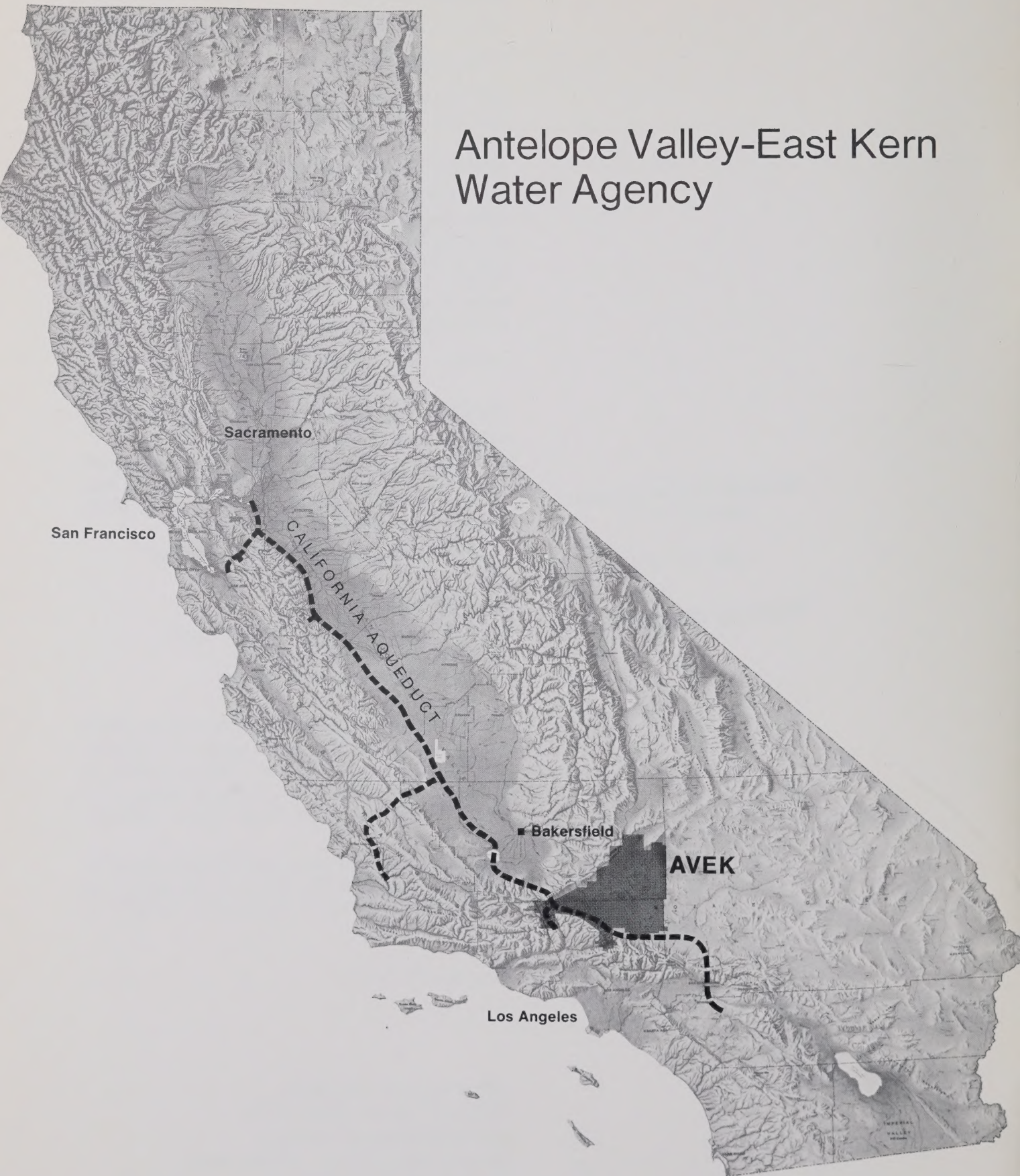
JAN 15 1976

UNIVERSITY OF CALIFORNIA

no slip



# Antelope Valley-East Kern Water Agency





## BOND SUMMARY

NEW ISSUE — SALE DATE JANUARY 27, 1976

### ANTELOPE VALLEY-EAST KERN WATER AGENCY KERN, LOS ANGELES AND VENTURA COUNTIES, CALIFORNIA

#### THE BONDS

*Name of Issue:* Antelope Valley-East Kern Water Agency, 1975 Water Bonds, Series B, General Obligation.

*Bond Amount and Type:* \$19,000,000 general obligation bonds.

*Denomination:* \$5,000.

*Interest:* Paid annually first year, on February 1, 1977, and semi-annually thereafter on each August 1 and February 1.

*Maturities:* Bonds dated February 1, 1976, due February 1 in each year as follows:

1980 .....	\$ 600,000	1983 .....	\$1,100,000
1981 .....	800,000	1984-85 .....	1,150,000
1982 .....	1,000,000	1986-96 .....	1,200,000

*Redemption:* Bonds maturing 1980-86 not callable. Bonds maturing 1987-96 callable as a whole or in part on any interest payment date on or after February 1, 1986. PREMIUM IS 1 PERCENT PER YEAR, 6 PERCENT MAXIMUM.

*Security:* Bonds are general obligations of agency; ad valorem taxes are levied on all taxable property for payment of bond service.

*Additional Bonds:* It is anticipated that no additional bonds will be sold within 90 days.

*Purpose of Bond Issue:* To construct distribution and treatment system for water from State Water Project.

*Legal Opinion:* O'Melveny & Myers, Los Angeles. The bonds are offered subject to the unqualified approving opinion of Messrs. O'Melveny & Myers, Bond Counsel, Los Angeles, California, as to the validity of the bonds (see "Legal Opinion" in Official Statement).

*Legality for Investment:* Bonds are legal investments in California for trust funds, commercial banks, trust companies, and insurance companies.

*Tax Exemption:* Interest is exempt from federal and California state income taxes under existing laws.

*Paying Agents:* Bank of America, N.T. & S.A., Los Angeles; First National City Bank, New York; and Harris Trust & Savings Bank, Chicago.

*Average Life of Bonds:* 12.51 years.

*Ratings:* Series A bonds rated "A" by Moody's Investors Service, Inc. and by Standard & Poor's Corporation. Ratings have been requested on Series B.

*Sale Date:* Tuesday, January 27, 1976; 11:00 a.m.; in Los Angeles.

#### THE AGENCY

*Assessed Valuation:* \$459,555,912

*Population:* 116,000

*Area of Agency:* 2,383 square miles

*Direct Debt Ratio:* To assessed valuation—9.14%  
Per capita—\$362.07

*Authorized, But Unissued:* \$29,000,000  
(After this Series B sale).

#### Tax Levies and Delinquencies:

	Secured Tax Levy	Amount Delinquent June 30	Percent Delinquent June 30
1969/70.....	\$1,668,320	\$ n.a.	n.a.
1970/71.....	1,707,431	91,092	5.34%
1971/72.....	2,517,140	177,039	7.03
1972/73.....	2,637,497	196,729	7.46
1973/74.....	2,647,155	220,358	8.32
1974/75.....	3,122,607	368,133	11.78

Data in this summary are intended to be used in conjunction with the Official Statement and Official Notice of Sale dated December 23, 1975.

Antelope Valley-East Kern Water Agency (AVEK) was formed in 1959 to master plan the use of imported water from the California State Water Project. The California Aqueduct, the State Water Project's major transmission facility, passes through the southern portion of the agency.

In June 1974, voters of AVEK authorized \$71,000,000 of general obligation bonds to finance construction of facilities to treat and distribute water from the State Water Project. The first series of bonds, \$23,000,000 sold May 20, 1975, provided funds for the first stage of construction. The \$19,000,000 Series B bonds will fund the second increment of project facilities. AVEK has contracts with local municipal and industrial users as well as with agricultural users, allocating water deliveries.

AVEK's service area includes 2,383 square miles of the 3,000 square mile Antelope Valley region. The area not served by AVEK is served by Palmdale Water District and Littlerock Creek Irrigation Districts in the southern portion of the valley, and Kern County Water Agency to the north.

The Antelope Valley of California is a high desert plain that crosses North Los Angeles County, East Kern County, and Northeast Ventura County. Located at the western edge of the Mojave Desert, the region is characterized by a diversified economy that includes aircraft production, manufacturing, mining, agriculture, and tourism. Governmental activities relating to county administration, federal air traffic control, and two major Air Force installations also form an important sector of the economy.

Large employers include U.S. Borax and Chemical Corporation, Lockheed Aircraft Company, Edwards Air Force Base, U.S. Air Force Plant 42, and other county

and local government facilities. Rockwell International Corporation, located at Plant 42, has received final authorization to develop the Space Shuttle Orbiter, a contract valued at \$1.8 billion. Rockwell is also building B-1 prototypes at another site at Plant 42. In Lancaster, the agency's principal community, are regional offices of the County of Los Angeles, in addition to regional commercial, banking, and cultural facilities.

Agricultural production in Antelope Valley exceeded \$46 million in 1974. The principal crops are alfalfa, yielding about \$12 million, and sugar beets, dry onions, wheat and pears. Livestock production, dominated by poultry, exceeded \$24 million in 1974. Agriculture is expected to continue as an important segment of the economy, partly because of the availability of water for irrigation from AVEK.

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#### ANTELOPE VALLEY-EAST KERN WATER AGENCY ECONOMIC INDICATORS, 1975

Assessed valuation .....	\$459,555,912
Population .....	116,000
Employment (Lancaster-Palmdale)* .....	27,770
Agricultural production (1974) .....	\$ 46,000,000
Alfalfa .....	12,000,000
Turkeys .....	10,000,000
Cattle and calves .....	3,500,000

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\* November 1975 estimate.

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# INTRODUCTION

The Antelope Valley is a high desert plain in Southern California covering more than 3,000 square miles, 2,383 square miles of which are in the Antelope Valley-East Kern Water Agency (AVEK). The agency includes portions of Kern, Los Angeles, and Ventura Counties. Assessed valuation in 1975/76 is \$459,555,912, and population is estimated at about 116,000. Lancaster is the agency's largest community, located about 60 miles north of Los Angeles via the Antelope Valley Freeway.

Antelope Valley-East Kern Water Agency (AVEK) was formed in 1959 under a special act of the California Legislature. The agency is one of the State Water Project contractors, having a maximum annual water entitlement of 138,400 acre-feet in 1991. The agency is the purveyor of state water in the Antelope Valley and has water service agreements with local retail water agencies for treated municipal and industrial water. Irrigation water service agreements have been solicited among the farmers in the valley.

In May 1975, AVEK offered the first series, \$23,000,000, of a \$71,000,000 general obligation bond authorization approved by the voters in June 1974. Series A bond proceeds funded construction of the first stage of treatment and distribution facilities, and the design of the second stage of facilities construction. Series B bonds will finance the \$19,000,000 second stage, plus design of the third stage.

The water treatment and distribution system is designed for 75,000 acre-feet of water, the agency's contract entitlement in 1981. Additional capacity to take water is achieved through direct service from the California Aqueduct to adjacent users within the agency. The California Aqueduct traverses the southern portion of the agency. Water served to the industrial customers of

the agency in the Palmdale area will be transmitted through facilities of the Palmdale Water District which serves the City of Palmdale.

Mining, manufacturing, agriculture and food processing, chemical processing and manufacturing, and governmental activities provide employment in the valley. U.S. Borax and Chemical Corporation mines and processes 80 percent of the world's boron and boron compounds at its facilities in Boron. The Lockheed L-1011 TriStar is produced at Lockheed's plant adjacent to the Palmdale Airport at U.S. Air Force Plant 42. Plant 42 is a military manufacturing facility for aircraft and related aerospace equipment. Edwards Air Force Base, a major U.S. Air Force flight test center, is located within the agency. The proposed Palmdale Intercontinental Airport, for which land has been purchased, is planned for construction in the 1980's.

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## CONTENTS

Bond Summary .....	3
Introduction .....	5
The Bonds .....	7
The Agency .....	8
The Project .....	9
Financial Data.....	16
The Region .....	25

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**ANTELOPE VALLEY-EAST KERN WATER AGENCY  
ESTIMATED ANNUAL BOND SERVICE, SERIES A AND B**

6

Fiscal Year	Estimated Series B			Actual Series A Bond Service	Total Annual Bond Service
	Principal Maturing Feb. 1	Interest at 7.5%	Total Bond Service		
1975/76.....	\$ —	\$ —	\$ —	\$ 1,753,000	\$ 1,753,000
1976/77.....	—	1,425,000	1,425,000	1,753,000	3,178,000
1977/78.....	—	1,425,000	1,425,000	1,753,000	3,178,000
1978/79.....	—	1,425,000	1,425,000	2,253,000	3,678,000
1979/80.....	600,000	1,425,000	2,025,000	2,713,000	4,738,000
1980/81.....	800,000	1,380,000	2,180,000	2,733,000	4,913,000
1981/82.....	1,000,000	1,320,000	2,320,000	2,745,000	5,065,000
1982/83.....	1,100,000	1,245,000	2,345,000	2,749,000	5,094,000
1983/84.....	1,150,000	1,162,500	2,312,500	2,745,000	5,057,500
1984/85.....	1,150,000	1,076,250	2,226,250	2,733,000	4,959,250
1985/86.....	1,200,000	990,000	2,190,000	2,613,000 <sup>①</sup>	4,803,000
1986/87.....	1,200,000 <sup>①</sup>	900,000	2,100,000	2,508,000 <sup>②</sup>	4,608,000
1987/88.....	1,200,000 <sup>①</sup>	810,000	2,010,000	2,399,250 <sup>②</sup>	4,409,250
1988/89.....	1,200,000 <sup>①</sup>	720,000	1,920,000	2,290,500 <sup>②</sup>	4,210,500
1989/90.....	1,200,000 <sup>①</sup>	630,000	1,830,000	2,179,500 <sup>②</sup>	4,009,500
1990/91.....	1,200,000 <sup>①</sup>	540,000	1,740,000	2,068,500 <sup>②</sup>	3,808,500
1991/92.....	1,200,000 <sup>①</sup>	450,000	1,650,000	1,956,000 <sup>②</sup>	3,606,000
1992/93.....	1,200,000 <sup>①</sup>	360,000	1,560,000	1,842,000 <sup>②</sup>	3,402,000
1993/94.....	1,200,000 <sup>①</sup>	270,000	1,470,000	1,728,000 <sup>②</sup>	3,198,000
1994/95.....	1,200,000 <sup>①</sup>	180,000	1,380,000	1,614,000 <sup>②</sup>	2,994,000
1995/96.....	1,200,000 <sup>①</sup>	90,000	1,290,000	—	1,290,000
Total .....	\$19,000,000	\$17,823,750	\$36,823,750	\$45,128,750	\$81,952,500

① Callable on February 1, 1986, or on any interest payment date thereafter.

② Callable on June 1, 1985, or on any interest payment date thereafter.

**ANTELOPE VALLEY-EAST KERN WATER AGENCY  
CALL PREMIUM TABULATION**

Amount of Bonds Maturing	Year of Maturity	(Year of Call)									
		1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
\$7,000,000.....	1980-1986	Non-callable									
1,200,000.....	1987	1%									
1,200,000.....	1988	2	1%								
1,200,000.....	1989	3	2	1%							
1,200,000.....	1990	4	3	2	1%						
1,200,000.....	1991	5	4	3	2	1%					
1,200,000.....	1992	6	5	4	3	2	1%				
1,200,000.....	1993	6	6	5	4	3	2	1%			
1,200,000.....	1994	6	6	6	5	4	3	2	1%		
1,200,000.....	1995	6	6	6	6	5	4	3	2	1%	
1,200,000.....	1996	6	6	6	6	6	5	4	3	2	1%



## THE BONDS

*Description:* \$19,000,000 Antelope Valley-East Kern Water Agency 1975 Water Bonds, Series B, General Obligation, \$5,000 denomination.

*Date:* February 1, 1976.

*Interest:* First coupon payable February 1, 1977, and coupons payable semiannually thereafter on August 1 and February 1.

*Maturities:* Annually, on February 1 as follows:

---

1980 .....	\$ 600,000	1983 .....	\$1,100,000
1981 .....	800,000	1984-85 .....	1,150,000
1982 .....	1,000,000	1986-96 .....	1,200,000

---

*Redemption:* Bonds maturing 1980-1986 (\$7,000,000) not callable. Bonds maturing 1987-1996 (\$12,000,000) callable as a whole or in part on any interest payment date on or after February 1, 1986, in inverse order of maturity and by lot within each maturity. Premium is 1 percent per year or portion of a year from date of redemption to date of maturity, with 6 percent maximum (see table opposite).

*Registration:* Coupon bonds, registrable as to principal only or as to both principal and interest, with provisions for deregistration and reregistration.

*Security:* Bonds are general obligations of the agency. The agency has the power and is obligated to the extent water rates are inadequate to levy ad valorem taxes annually on all taxable property in the agency, without limitation as to rate or amount. The agency intends to collect revenues for sale of water, as detailed in a subsequent section.

*Tax Exemption:* In the opinion of bond counsel, interest is exempt from present federal income taxes and from California personal income taxes under existing statutes, regulations, and court decisions.

*Payment:* At the main office of designated paying agent in Los Angeles, and at offices of co-paying agents in New York and Chicago.

*Authority for Issuance:* \$71,000,000 general obligation bonds were authorized at the general election June

4, 1974. Bonds issued pursuant to the Antelope Valley-East Kern Water Agency Act (Statutes 1959, Chapter 2146 of the State of California) and the resolution of the agency dated December 23, 1975.

*Additional Bonds:* \$29,000,000 additional bonds are authorized but unsold. It is anticipated that no additional bonds will be offered within 90 days. The agency plans to offer \$19,000,000 Series C bonds in May 1976.

*Legality for Investment:* General obligation bonds of the agency are legal investments in California for trust funds and for funds of all insurance companies, commercial banks, and trust companies.

*Annual Bond Service:* The accompanying table shows estimated annual requirements for interest and principal payments on Series B bonds as well as actual requirements for Series A bonds.

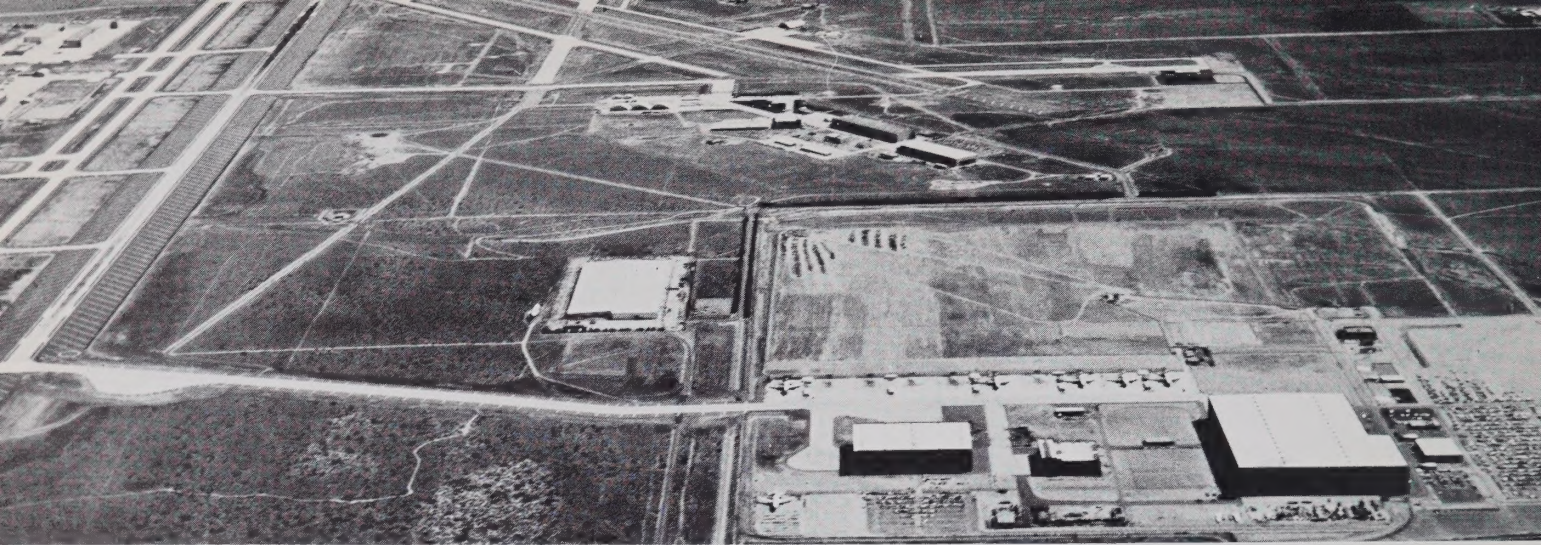
*Legal Opinion:* The unqualified opinion of Messrs. O'Melveny & Myers, Los Angeles, ("Bond Counsel") approving the validity of the bonds will be supplied free of charge to the purchasers at the time of the original delivery of the bonds. A copy of the legal opinion will be printed on each bond without charge to the successful bidder.

The statements of law and legal conclusions set forth herein under the captions "Description," "Redemption," "Registration," "Security," "Tax Exemption," "Payment," "Authority for Issuance," and "Purpose," have been reviewed by Bond Counsel. Bond Counsel's employment is limited to a review of the legal proceedings required for the authorization of the bonds, and to rendering opinions as to the validity of the bonds and exemption of interest on the bonds from income taxation. The opinion of Bond Counsel will not consider or extend to any documents, agreements, representations, offering circulars or other materials of any kind concerning the bonds not mentioned in this paragraph.

*Purpose:* Bond proceeds will be used for a domestic and agricultural water network to distribute imported water from the State Water Project.

*Sale:* Tuesday, January 27, 1976. Bonds will be awarded pursuant to the Official Notice of Sale dated December 23, 1975.





*Above: U.S. Air Force Plant 42 houses Antelope Valley's major industrial employers. About 9,500 persons are employed at Plant 42. (Frank Stubbings photo)*

## THE AGENCY

Antelope Valley-East Kern Water Agency was formed by the Antelope Valley-East Kern Water Agency Act (Statute 1959, Chapter 2146 of the State of California). Originally the agency comprised 1,400,000 acres in northern Los Angeles and eastern Kern Counties. Through annexations the agency now comprises about 1,525,000 acres, or 2,383 square miles, now including a small portion of Ventura County. About 41.7 percent of the land area is in northern Los Angeles County, 57.8 percent in eastern Kern County, and 0.5 percent in Ventura County.

In the late 1950's, a group of concerned individuals representing all parts of the Antelope Valley formed the Antelope Valley-East Kern Water Basin Association to study needs for the region. This group saw the need for importation of water to prevent further deterioration of the groundwater basin, and to provide for future population growth. Largely through the actions of the Water Basin Association, legislation was introduced to form Antelope Valley-East Kern Water Agency (AVEK).

The agency is governed by seven directors, elected from their respective divisions for four-year terms. The boundaries of the divisions are such that each contains about the same percentage of population. The board's current members are as follows:

*Ruel G. Williams:* President of the Board of Directors, Mr. Williams, representing Division 2 since 1960, is a 29-year resident of Antelope Valley and a Realtor in the community of Rosamond. His current term expires in 1978.

*Ernest Coleal:* Assistant to the Technical Director for Advance Planning at Edwards Air Force Base, Mr. Coleal represents Division 7. He holds masters degrees in Mechanical Engineering from University of California and in Industrial Management from Massachusetts Institute of Technology. He will serve until his current term expires in 1976.

*S. Joseph Hunt:* Mr. Hunt is a retired building contractor (formerly President of Hunt Construction Co.) from Palmdale, representing Division 4 since 1960. His present term expires in December 1976.

*Carl B. Hunter, Jr.:* Mr. Hunter, the representative of Division 1, is a cost control supervisor at U.S. Borax in Boron, whose term expires in 1978.

*William V. Ralston:* From Division 6, Mr. Ralston is an industrial relations director for General Electric at Edwards A.F.B. and Mojave and resides in Lancaster. Mr. Ralston's term expires in December 1976.

*Ralph R. Ritter:* Mr. Ritter owns Ritter's Market in Leona Valley. He represents Division 3 and his term will expire in 1978.

*C. D. Smith:* Vice President of the Board of Directors, representing Division 5, Mr. Smith is retired from the Southern California Edison Company and lives in Lancaster. His term will expire in 1978.

Wallace G. Spinarski has been employed as general manager of AVEK since 1966. Mr. Spinarski holds a degree in Mechanical Engineering from North Dakota State University. Prior to joining AVEK in 1962, he was with the Waterworks and Utilities Division of the Los Angeles County Engineer. Mr. Spinarski is also active in the State Water Contractors Audit Committee, is the chairman of the Department of Water Resources Budget Review Committee, and is a member of the board of directors of the California Water Resources Association. He is also on the legislative committee of the Association of California Water Agencies.

Mrs. Betty J. Regan is secretary-treasurer, Sanford A. Waugh is legal counsel, and William J. Mead is public information consultant to the agency. Mrs. B. J. Swanson has been with the agency since 1961 and is the agency's bookkeeper.



## THE PROJECT

### THE STATE WATER PROJECT

The State Water Project is designed to deliver 4,230,000 acre-feet of water per year to water-deficient areas in Central and Southern California. Construction of the project was authorized by the California Legislature in 1951. In the general election of November 1960, the Burns-Porter Act was passed which authorized issuance of \$1.75 billion in state general obligation bonds to finance the major portion of the project. Thirty-one local agencies have executed contracts with the DWR and have agreed to repay over \$2 billion in costs of facilities required for conserving and transporting this water. The California Aqueduct, the State Water Project's primary transmission facility, flows through the southern portion of AVEK.

### THE AVEK PROJECT

AVEK's project is staged to distribute, treat and store state water under contract by the agency. The water will be delivered to local water users through project facilities. The imported water will reduce overdrafts of groundwater and provide supplemental water supply for present and projected water requirements for municipal, industrial and agricultural use.

Facilities financed by Series A bonds included feeders, a water treatment plant, pumping station, telemetry and control equipment, and an agency building.

Series B bonds will fund construction of facilities as detailed below. A water treatment plant at Rosamond is the largest element of this second stage of the AVEK project.

Antelope Valley-East Kern Water Agency was formed in September 1959, by an act of the California Legislature, to master plan the importation and distribution of water from the State Water Project. The agency executed a contract in 1962 with the California Department of Water Resources (DWR) for delivery of a maximum annual entitlement of 120,000 acre-feet of water. Amendments to the contract have increased the maximum annual entitlement to 138,400 acre-feet. Shown on page 11 is a table of the agency's annual water entitlement from 1975 through 1985. The year in which entitlement reaches the maximum is 1991, after which time it remains the same.

Since 1965, Boyle Engineering Corporation has worked with the agency to plan for distribution of State Water Project water to AVEK. In 1966, Boyle Engineering presented a plan, which was adopted by AVEK, defining the location and capacity of delivery structures. Turnouts from the California Aqueduct were constructed for AVEK in accordance with the plan.

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#### ANTELOPE VALLEY-EAST KERN WATER AGENCY ALLOCATION OF BOND PROCEEDS, SERIES B

##### Facility

West Feeder Unit 2.....	\$ 4,000,000
Rosamond Water Treatment Plant and Reservoirs .....	9,000,000
Central Feeder .....	3,700,000
Mojave Reservoir (1st Phase).....	500,000
Mojave Pump Station and Feeder.....	650,000
Total Estimated Construction Costs.....	\$17,850,000
Right-of-way, utilities and engineering for third stage facilities and contingencies.....	1,150,000
Amount of Series B Bonds.....	\$19,000,000

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**ANTELOPE VALLEY-EAST KERN WATER AGENCY**  
**FIVE-YEAR PROJECTION OF WATER DEMAND (in Acre-Feet)**

Customer	1976			1977			1978			1979			1980		
	M&I		Irrig.	M&I		Irrig.	M&I		Irrig.	M&I		Irrig.	M&I		Irrig.
	Treated	Raw		Treated	Raw		Treated	Raw		Treated	Raw		Treated	Raw	
Boron Comm. Services District.....	—	—	—	—	—	—	595	—	—	598	—	—	600	—	—
Desert Lake Comm. Serv. District...	—	—	—	—	—	—	33	—	—	34	—	—	35	—	—
U. S. Borax .....	—	—	—	—	—	—	2,725	—	—	2,916	—	—	3,110	—	—
California City .....	—	—	—	—	—	—	—	—	—	—	—	—	3,000	—	—
Mojave Public Utility District.....	—	—	—	—	—	—	2,684	—	—	2,850	—	—	3,007	—	—
Rosamond Comm. Services District...	—	—	—	—	—	—	480	—	—	500	—	—	520	—	—
Quartz Hill Co. Water District.....	—	—	—	600	—	—	957	—	—	1,051	—	—	1,145	—	—
Sunnyside Farms Mutual WC.....	—	—	—	80	—	—	120	—	—	130	—	—	140	—	—
White Fence Farms No. 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mutual WC .....	—	—	—	80	—	—	120	—	—	130	—	—	140	—	—
Castle Ranch .....	—	—	—	—	—	—	No Projections Given			—	—	—	—	—	—
Antelope Valley Water Co.....	—	—	—	120	—	—	176	—	—	185	—	—	193	—	—
Los Angeles Co. WWD No. 4 and 34..	—	—	—	7,000	—	—	8,900	—	—	9,350	—	—	9,800	—	—
Los Angeles Co. WWD No. 24, 27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
and 33 .....	—	—	—	—	—	—	150	—	—	235	—	—	320	—	—
Los Angeles Co. WWD No. 35.....	—	—	—	—	—	—	100	—	—	167	—	—	235	—	—
Los Angeles Co. WWD No. 37.....	—	—	—	—	—	—	—	—	—	200	—	—	295	—	—
Los Angeles Co. WWD No. 38.....	—	—	—	—	—	—	150	—	—	239	—	—	328	—	—
Elizabeth Lake Mutual WC.....	—	910	—	—	910	—	—	910	—	—	910	—	—	910	—
West Valley Co. Water District.....	—	—	—	—	—	—	Demands After 1982			—	—	—	—	—	—
Golden Valley Mun. Water District..	—	—	—	200	—	—	Demands After 1982			—	—	—	393	—	—
Palm Ranch Irrigation District.....	—	—	—	—	—	—	298	—	—	345	—	—	—	—	—
Lockheed Plant 10.....	—	—	—	—	—	—	—	600	—	—	600	—	—	600	—
Palmdale Airport Interim Facilities..	—	—	—	—	—	—	—	500	—	—	500	—	—	500	—
John Fuson .....	—	—	8,575	—	—	8,575	—	—	8,575	—	—	8,575	—	—	8,575
Harold M. Ross .....	—	960	—	—	960	—	—	960	—	—	960	—	—	960	—
Healy Enterprises .....	—	1,920	—	—	4,920	2,200	—	4,920	2,200	—	4,920	2,200	—	4,920	2,200
Tejon Ranch Co. ....	—	4,360	3,140	—	4,360	3,140	—	4,360	3,140	—	4,360	3,140	—	4,360	3,140
D & S Enterprises.....	—	960	3,250	—	960	3,250	—	960	3,250	—	960	3,250	—	960	3,250
Thomas M. Hughes.....	—	—	4,480	—	—	10,320	—	—	10,320	—	—	10,320	—	—	10,320
Platt Ranch Co.....	—	1,000	—	—	1,000	—	—	1,000	—	—	1,000	—	—	1,000	—
Ralph Bozigian .....	—	—	—	—	—	2,200	—	—	2,200	—	—	2,200	—	—	2,200
Henry H. Hunter .....	—	700	—	—	700	—	—	700	—	—	700	—	—	700	—
Tony Cafaro .....	—	—	—	—	—	2,880	—	—	2,880	—	—	2,880	—	—	2,880
Jerry Godde .....	—	—	—	—	—	—	—	800	—	—	800	—	—	800	—
Leslie Weaver .....	—	—	—	—	—	1,200	—	—	1,200	—	—	1,200	—	—	1,200
Armando Iarassi .....	—	—	—	—	—	1,850	—	—	1,850	—	—	1,850	—	—	1,850
D. G. Davis.....	—	—	—	—	—	—	—	1,900	—	—	1,900	—	—	1,900	—
Alesso Farms .....	—	—	—	—	—	4,160	—	—	4,160	—	—	4,160	—	—	4,160
W. W. Hartshorn.....	—	—	—	—	—	450	—	—	450	—	—	450	—	—	450
Lancaster Ranches, Inc.....	—	—	—	—	—	5,761	—	—	5,761	—	—	5,761	—	—	5,761
Mera Beery .....	—	—	—	—	—	—	—	3,056	—	—	3,056	—	—	3,056	—
Pierre Biscaichipy.....	—	—	—	—	—	—	—	1,000	—	—	1,000	—	—	1,000	—
Ritter & Godde.....	—	—	—	—	—	9,150	—	—	9,150	—	—	9,150	—	—	9,150
F. Godde & L. Godde.....	—	—	—	—	—	2,500	—	—	3,350	—	—	3,350	—	—	3,350
Mitchell & Ganning Farms.....	—	—	—	—	—	3,080	—	—	3,080	—	—	3,080	—	—	3,080
Stoner Properties .....	—	—	—	—	—	—	—	5,600	—	—	5,600	—	—	5,600	—
William & Clarence Schroeder.....	—	—	—	—	—	—	—	1,625	—	—	1,625	—	—	1,625	—
Silver Shield Dairy Farms.....	—	—	—	—	—	2,100	—	—	2,100	—	—	2,100	—	—	2,100
Eyherabide Sheep Co.....	—	—	—	—	—	2,200	—	—	2,200	—	—	2,200	—	—	2,200
John Vartanian .....	—	—	—	—	—	—	—	450	—	—	450	—	—	450	—
John A. Fort .....	—	—	—	—	—	1,100	—	—	1,100	—	—	1,100	—	—	1,100
Emma C. Greenman.....	—	—	—	—	—	2,240	—	—	2,240	—	—	2,240	—	—	2,240
Frank Lotito .....	—	—	—	—	—	1,728	—	—	1,728	—	—	1,728	—	—	1,728
John Kavara .....	—	—	—	—	—	1,100	—	—	1,100	—	—	1,100	—	—	1,100
Robert Dennis .....	—	—	—	—	—	460	—	—	460	—	—	460	—	—	460
McCarthy/Montijo .....	—	—	—	—	—	—	—	1,490	—	—	1,490	—	—	1,490	—
John and Jean Canty.....	—	—	—	—	—	—	—	54	—	—	54	—	—	54	—
Great Lakes Properties.....	—	—	—	—	—	2,640	—	—	2,640	—	—	2,640	—	—	2,640
Robert E. Peteren.....	—	—	—	—	—	2,200	—	—	2,200	—	—	2,200	—	—	2,200
Frank Lane .....	—	—	—	—	—	500	—	—	720	—	—	720	—	—	720
Jack P. Kalpakoff.....	—	—	—	—	—	1,275	—	—	1,275	—	—	1,275	—	—	1,275
Jack P. Kalpakoff, Jr.....	—	—	—	—	—	2,560	—	—	2,560	—	—	2,560	—	—	2,560
Jim Kertzman .....	—	—	—	—	—	1,120	—	—	1,120	—	—	1,120	—	—	1,120
Dominique Reco .....	—	—	—	—	—	1,040	—	—	1,040	—	—	1,040	—	—	1,040
Melvin M. Stueve.....	—	—	—	—	—	2,100	—	—	2,100	—	—	2,100	—	—	2,100
S. S. Fabe .....	—	—	—	—	500	—	—	500	—	—	500	—	—	500	—
Virgil O. John.....	—	—	—	—	—	—	—	800	—	—	800	—	—	800	—
K. Lamaison .....	—	—	—	—	—	2,000	—	—	2,000	—	—	2,000	—	—	2,000
G. E. Kinsey.....	—	50	—	—	50	—	—	50	—	—	50	—	—	50	—

Contracts for irrigation water service from the West Feeder exceed the capacity of the feeder as follows: 1977—7,500 acre-feet; 1978—24,300 acre-feet; 1979—24,300 acre-feet; 1980—24,300 acre-feet.



The facilities necessary to receive, treat and distribute the water available from the state were subsequently planned in 1968 by Boyle Engineering and by Bartle Wells Associates, financing consultants on the project.

Elections to authorize the sale of general obligation bonds to finance the project were held in February 1971, and in May 1972. While obtaining a majority yes vote, the measures lacked the two-thirds majority vote each time.

In 1973 the California Legislature passed a law (Section 12944.5 of the California Water Code) providing that a local public agency with a contract for State Water Project water could issue bonds upon approval of a simple majority to finance the acquisition and construction of facilities to use State water. Revised engineering and financing plans were prepared by Boyle Engineering and Bartle Wells Associates for the agency, incorporating the latest changes in the project and costs. At the June 4, 1974 statewide primary election, voters of AVEK approved by majority vote \$71,000,000 of general obligation bonds.

The \$71 million bond authorization will finance a distribution, storage and treatment system to supply imported requirements until about 1985. A second-phase plan of facilities that may be needed and methods of financing will be formulated after the first phase is operational. This will enable the agency to more accurately plan for future water at that time in light of actual growth experience. It is expected that all of the initial phase facilities will be completed by about mid-1978.

FAIRMONT BUTTES RESERVOIR

Fairmont Buttes Reservoir, a part of the State Water Project, is an off-aqueduct dam and 21,800 acre-foot storage facility that would provide peaking capacity to AVEK. According to the DWR Bulletin 132-75, the project would not be constructed until 1982. AVEK's

capital cost component to the state will increase upon the state's commencement of design on this reservoir as shown in the table on page 13. It is expected that until the reservoir is operational, the state will provide the necessary peaking capacity directly from the aqueduct at no extra cost.

WATER SERVICE AGREEMENTS

The agency has water service agreements with 68 local water organizations and individuals, representing over 90 percent of the population of the agency. Terms and conditions of these agreements stipulate that the agency will supply water based on the individual contractor's needs as projected for a five year period, beginning 1976-80, to be revised each subsequent year. Water charges, as established by the agency, will pay for the variable operation, maintenance, power and replacement (OMPR) and Delta water charge components of the agency's contract with the state, as well as pay for the agency's fixed and variable operation, maintenance, power and replacement (OMPR) component of its own distribution system. Water charges will be revised with changes in water demand.

The agency has contracted with the Lockheed Plant and the interim Palmdale Airport facilities at Plant 42 to deliver their allocations of water through the Palmdale Water District's system.

WATER ENTITLEMENT AND DELIVERIES

The water entitlement and projected water deliveries for which the agency has contracted with the state are shown in the table below. The table opposite shows the five-year projection of water demand for the agency's 68 water contractors.

The water deliveries shown in the table were estimated by Boyle Engineering Corporation, and are based on executed water service agreements for municipal, indus-

ANTELOPE VALLEY-EAST KERN WATER AGENCY  
WATER ENTITLEMENT AND PROJECTED DELIVERIES

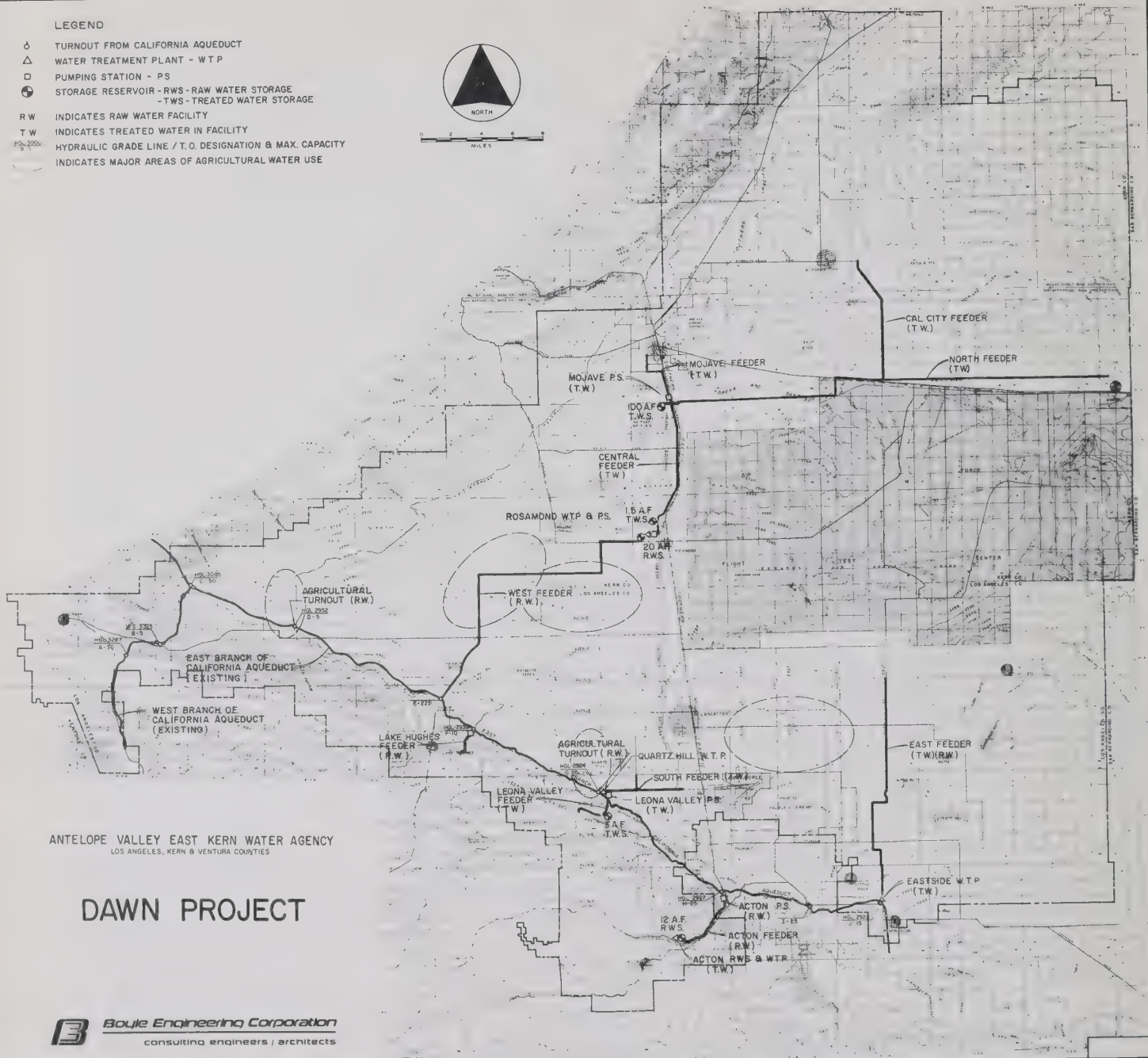
Fiscal Year	Contract Entitlement (000 Acre-Feet)	Water Deliveries in 000's Acre-Feet			
		Municipal and Industrial		Irrigation	Total
		Treated	Raw	Raw	
1975/76.....	39.50	—	5.60	13.55	19.15
1976/77.....	47.00	4.04	12.61	49.50	66.15
1977/78.....	53.50	12.78	14.91	80.11	107.80
1978/79.....	60.00	18.27	15.46	80.60	114.33
1979/80.....	66.10	21.31	15.46	80.53	117.30
1980/81.....	72.10	24.53	15.46	80.31	120.30
1981/82.....	78.15	26.50	15.46	79.79	121.75
1982/83.....	84.50	28.50	15.46	52.29	96.25
1983/84.....	90.85	30.50	15.46	25.04	71.00
1984/85.....	97.20	33.00	15.46	25.04	73.50
1985/86.....	103.55	36.00	15.46	25.04	76.50

# LEGEND

- ◊ TURNOUT FROM CALIFORNIA AQUEDUCT
- △ WATER TREATMENT PLANT - WTP
- PUMPING STATION - PS
- STORAGE RESERVOIR - RWS - RAW WATER STORAGE  
○ TWS - TREATED WATER STORAGE
- RW INDICATES RAW WATER FACILITY
- TW INDICATES TREATED WATER IN FACILITY
- 100 200 300  
0 1 2 3 4 5  
MILES
- HYDRAULIC GRADE LINE / T.O. DESIGNATION & MAX. CAPACITY
- INDICATES MAJOR AREAS OF AGRICULTURAL WATER USE



0 1 2 3 4 5  
MILES



ANTELOPE VALLEY EAST KERN WATER AGENCY  
LOS ANGELES, KERN & VENTURA COUNTIES

## DAWN PROJECT

**Boyle Engineering Corporation**  
consulting engineers / architects

trial, and irrigation water and the project's capacity to deliver water. Water for municipal and industrial use is available either treated or raw. Irrigation water contracts actually exceed capacity of the West Feeder by 24,300 acre-feet in 1980.

Prior to completion of the current project, deliveries are via temporary turnouts developed for farmers and other users located adjacent to the California Aqueduct.

Groundwater decline in the Antelope Valley ranges from 1 to 11.7 feet per year. Wells have to be redrilled with some frequency. Groundwater conditions require well depths to be 600 feet below ground surface in the Lancaster area in order to develop maximum yield. With increasing energy costs, the agency's imported water demand is assured. Imported water is still less costly than deep well water lifted an average of 250 feet.



# **ANTELOPE VALLEY-EAST KERN WATER AGENCY STATE CONTRACT EXPENSE**

Fiscal Year	Fixed Annual Costs		Delta Water Charge <sup>①</sup>	Variable OMP&R <sup>②</sup>	State Charges Total
	Capital	OMP&R			
1975/76.....	\$1,754,353	\$490,098	\$ 375,420	\$ 242,643	\$2,862,514
1976/77.....	1,760,823	444,352	465,306	871,543	3,542,024
1977/78.....	1,776,210	483,868	528,979	1,519,172	4,308,229
1978/79.....	1,781,154	484,342	587,751	1,740,487	4,593,734
1979/80.....	1,791,516	483,691	647,506	1,806,535	4,729,248
1980/81.....	1,812,782	483,883	706,282	1,846,710	4,849,657
1981/82.....	1,845,600	486,272	765,547	1,903,050	5,000,469
1982/83.....	1,894,093	536,607	827,751	2,686,660	5,945,111
1983/84.....	1,959,669	583,619	889,955	3,521,300	6,954,543
1984/85.....	2,188,663	582,317	957,158	3,666,750	7,394,888
1985/86.....	2,597,164	589,094	1,019,361	3,848,340	8,053,959

① \$9.80 per acre-foot of entitlement through 1988.

② \$11.84 to \$50.81 per acre-foot of water delivered.

Source: DWR Bulletin 132-75.

## **STATE WATER CONTRACT EXPENSE**

The costs of the state contract to the agency are the fixed annual costs and the Delta water charge, calculated on the contract entitlement, regardless of water taken. The variable OMPR cost is levied only on the quantity of water taken. The latter column reflects the water deliveries projected by the agency's consulting engineers, based on water service agreements and the 1973 water demand survey.

## **ESTIMATED AGENCY EXPENSE**

The agency's costs of administration, treatment and distribution were estimated by the agency's consulting engineers, based on estimates of water deliveries. The agency bond service obligations are based on actual Series A and estimated bond service on the entire \$71 million bond authorization, assuming 20 year maturity schedules at 7.5 percent interest rates.

13

# **ANTELOPE VALLEY-EAST KERN WATER AGENCY ESTIMATED AGENCY EXPENSE**

Fiscal Year	Administrative	Treatment and Transmission	Estimated Bond Service*	Total
1975/76.....	\$66,000	\$ 22,850	\$1,753,000	\$1,841,850
1976/77.....	68,000	198,773	4,603,000	4,869,773
1977/78.....	70,000	503,000	4,603,000	5,176,000
1978/79.....	72,000	811,551	5,853,000	6,736,551
1979/80.....	74,000	954,427	7,513,000	8,541,427
1980/81.....	76,000	1,120,538	7,843,000	9,039,538
1981/82.....	78,000	1,230,419	8,285,000	9,593,419
1982/83.....	80,000	1,169,160	8,509,000	9,758,160
1983/84.....	82,000	1,281,529	8,513,750	9,877,279
1984/85.....	84,000	1,418,941	8,345,500	9,848,441
1985/86.....	86,000	1,592,542	8,215,500	9,894,042

\* Series A, \$23,000,000 dated June 1, 1975.

Series B, \$19,000,000, dated February 1, 1976.

Series C, \$19,000,000, dated May 1, 1976.

Series D, \$10,000,000, dated July 1, 1977.

Source: Boyle Engineering Corp.



*Above:* Alfalfa is Antelope Valley's most highly valued field crop. The mild climate and long growing season permit alfalfa to be cut up to six times a year in some parts of the Antelope Valley.

*Below:* Antelope Valley College, as seen from the air, is accredited by the Western Association of Schools and Colleges.

*(Frank Stubbings photos)*





**ANTELOPE VALLEY-EAST KERN WATER AGENCY  
PROJECTED WATER RATES AND REVENUES\***

Fiscal Year	Municipal and Industrial			Irrigation		Total Water Revenue
	Rate Per Acre-Foot		Revenue	Rate Per Acre-Foot		
	Treated	Raw		Raw	Revenue	
1975/76.....	\$38	\$24	\$ 134,520	\$18	\$ 243,810	\$ 378,330
1976/77.....	40	26	789,460	18	810,000	1,599,460
1977/78.....	44	28	1,079,976	18	1,441,908	2,521,884
1978/79.....	48	30	1,340,952	20	1,611,320	2,952,272
1979/80.....	50	31	1,544,660	21	1,691,172	3,235,832
1980/81.....	52	32	1,770,176	22	1,766,864	3,537,040
1981/82.....	54	33	1,941,180	23	1,835,170	3,776,350
1982/83.....	60	50	2,483,000	35	1,830,150	4,313,150
1983/84.....	88	68	3,735,280	60	1,502,400	5,237,680
1984/85.....	92	72	4,149,312	60	1,502,400	5,651,712
1985/86.....	92	72	4,425,312	60	1,502,400	5,927,712

\* The Metropolitan Water District of Southern California will sell state water to its member agencies at the following comparable rates in 1975/76: treated municipal and industrial water, \$77/a.f.; untreated municipal and industrial water, \$68/a.f.; and irrigation (raw) water, \$35/a.f.

Source: Boyle Engineering Corp.

**PROJECTED WATER RATES AND REVENUES**

The projection of water rates and revenues are based on preliminary rates. Compared to the wholesale water rates charged by the Metropolitan Water District of Southern California in 1975/76, the agency's rates appear conservative. However, the agency's policy is to encourage water use, especially in these initial years.

**REVENUES, EXPENSES AND TAX RATES**

The summary of revenues, expenses and estimated tax levies is derived from the water revenues table, the state

contract expense table, and agency expense table. The annual tax levy indicated is the balance of moneys needed to meet annual costs. The tax rate is estimated based on projected assessed valuation of the agency.

Total system costs, including bond service, are supported about 20 percent on the average by the water revenues. Should the agency decide to make its wholesale water rates equivalent to those charged by the Metropolitan Water District of Southern California, agency revenues would increase substantially, and agency tax rates would decline proportionately.

15

**ANTELOPE VALLEY-EAST KERN WATER AGENCY  
PROJECTED WATER REVENUES, EXPENSES, AND TAX RATES**

Fiscal Year	Total State Contract Expense	Total Agency Expense <sup>①</sup>	Total Annual Expenses	Less: Water Revenues	Estimated Annual Tax Levy	Projected Assessed Valuation (\$000) <sup>②</sup>	Estimated Tax Rate Per \$100 Assessed Valuation
1975/76.....	\$2,862,514	\$1,841,850	\$ 4,704,364	\$ 378,330	\$ 4,326,034	\$459,500	\$0.941
1976/77.....	3,542,024	4,869,773	8,411,797	1,599,460	6,812,337	482,475	1.412
1977/78.....	4,308,229	5,176,000	9,484,229	2,521,884	6,962,345	505,450	1.378
1978/79.....	4,593,734	6,736,551	11,330,285	2,952,272	8,378,013	528,425	1.585
1979/80.....	4,729,248	8,541,427	13,270,675	3,235,832	10,034,843	551,400	1.820
1980/81.....	4,849,657	9,039,538	13,889,195	3,537,040	10,352,155	574,375	1.802
1981/82.....	5,000,469	9,593,419	14,593,888	3,776,350	10,817,538	597,350	1.811
1982/83.....	5,945,111	9,758,160	15,703,271	4,313,150	11,390,121	620,325	1.836
1983/84.....	6,954,543	9,877,279	16,831,822	5,237,680	11,594,142	643,300	1.802
1984/85.....	7,394,888	9,848,941	17,243,829	5,651,712	11,592,117	666,275	1.740
1985/86.....	8,053,959	9,894,542	17,948,501	5,927,712	12,020,789	689,250	1.744

<sup>①</sup> Includes bond service.

<sup>②</sup> Assessed valuation projected at 5 percent growth.

## FINANCIAL DATA

### ASSESSED VALUATION

Public utility property in Los Angeles, Kern and Ventura Counties is assessed by the State Board of Equalization at 25 percent of full market value and all other taxable property is assessed by the county assessor in each county. The table below shows an eight year history of assessed valuation of the agency by county. The decline in assessed valuation after 1972/73 reflects a correction by the respective county assessors of the speculative values placed on land in the Antelope Valley. The dramatic increase in assessed value between 1971/72 and 1972/73 is due, in part, to the annexation of California City, a planned community in the northwest corner of the agency.

The State Board of Equalization reports that in 1975/76 Los Angeles County valuations average 25.3 percent of market value, Kern County valuations average 24.1 percent of market value, and Ventura County valuations average 24.8 percent of market value. Total assessed valuations shown in the table include homeowners' exemptions and business inventory exemptions on which the state contributes revenue in lieu of property taxes that would otherwise be payable.

### TAX RATES

The agency is limited to a 10 cents per \$100 of assessed valuation tax rate for administrative purposes. The \$.9346 per \$100 of assessed valuation being levied in the current fiscal year are to meet the agency's obligations under its contract with DWR and necessary developmental and bond interest costs pertaining to the current project; \$.0361 per \$100 of assessed valuation is the portion of the current levy applied to administrative purposes.

### TAX COLLECTIONS AND DELINQUENCIES

Agency taxes are billed and collected by each county tax collector together with county, school and other spe-

### ANTELOPE VALLEY-EAST KERN WATER AGENCY SECURED TAX LEVIES, COLLECTIONS AND DELINQUENCIES

Fiscal Year	Secured Tax Levy	Amount Delinquent June 30	Percent Delinquent June 30
<b>1970/71</b>			
Los Angeles.....	\$1,134,915	\$ 55,614	4.90%
Kern .....	570,904	35,383	6.20
Ventura .....	1,612	95	5.89
Total .....	\$1,707,431	\$ 91,092	5.34%
<b>1971/72</b>			
Los Angeles.....	\$1,707,829	\$110,749	6.48%
Kern .....	807,063	66,127	8.19
Ventura .....	2,248	163	7.25
Total .....	\$2,517,140	\$177,039	7.03%
<b>1972/73</b>			
Los Angeles.....	\$1,826,466	\$116,860	6.40%
Kern .....	808,892	79,706	9.85
Ventura .....	2,139	163	7.62
Total .....	\$2,637,497	\$196,729	7.46%
<b>1973/74</b>			
Los Angeles.....	\$1,818,593	\$112,829	6.20%
Kern .....	826,153	107,444	13.01
Ventura .....	2,409	85	3.53
Total .....	\$2,647,155	\$220,358	8.32%
<b>1974/75</b>			
Los Angeles.....	\$2,190,488	\$225,057	10.27%
Kern .....	929,223	143,053	15.39
Ventura .....	2,896	23	0.79
Total .....	\$3,122,607	\$368,133	11.87%

Source: County assessor's offices.

### ANTELOPE VALLEY-EAST KERN WATER AGENCY ASSESSED VALUATION, 1968/69 - 1975/76

Year	Los Angeles County	Kern County	Ventura County	Total Assessed Valuation	AVEK General Tax Rate <sup>①</sup>
1968/69.....	\$188,911,934	\$ 67,079,190	\$612,050	\$256,603,174	\$0.05116
1969/70.....	198,853,900	67,951,400	746,500	267,551,800	0.62210
1970/71.....	240,555,845	89,678,350	699,980	330,934,175	0.50760
1971/72.....	304,957,837	104,980,950	741,584	410,680,631	0.59770
1972/73.....	351,255,379	146,551,680	744,964	498,552,023	0.55480
1973/74.....	325,461,636	134,970,850	692,294	461,124,780	0.63500
1974/75.....	331,097,115	124,128,210	703,174	455,928,499	0.75960
1975/76.....	328,840,712	130,031,476	683,724	459,555,912	0.93460

<sup>①</sup> Does not include California City annexation charge; includes \$.3666 for debt service on bonds of 1975, Series A.

Sources: County assessor's offices, AVEK Audit Reports.





*Above:* The California Aqueduct winds through a portion of Antelope Valley. The primary long-term demand for imported water in AVEK will be for municipal and industrial use with surplus water available for agriculture. Distribution facilities will be constructed with bond proceeds.

*Left:* The A. D. Edmonston pump plant lifts water 2,000 feet up the side of the Tehachapi Mountains.

*Left above:* South of Palmdale, the California Aqueduct follows the base of the San Gabriel Mountains before crossing into the Los Angeles Basin.

*Photos courtesy of Department of Water Resources, Jack Overlade, and California State Parks Foundation.*









*Left:* Each spring Antelope Valley is colored with wildflowers. Shown here is the designated area of the Valley which has been proposed as the state's first wildflower preserve, one of the few remaining areas where the California Poppy still grows in abundance.

*Above:* The California Aqueduct Bikeway follows 28 miles of the aqueduct through Antelope Valley. In June 1973, about 200 bicycling enthusiasts enjoyed a Wildflower Bicycle Ride, sponsored by AVEK in cooperation with local bicycle and recreation groups. The ride covered part of what will eventually be the second reach of the California Aqueduct Bikeway, extending 100 miles from the Tehachapi Afterbay to Silverwood Lake.

*Photos courtesy of Department of Water Resources and California State Parks Foundation.*





*Above and left: Pearblossom Pumping Plant was completed in 1971 with 828 cubic feet per second installed capacity. A few miles beyond the pumping plant, water reaches its highest point in the system, 3,500 feet above sea level, before making its way to Silverwood Lake and finally to Lake Perris in Riverside County.*

*Photos courtesy of Department of Water Resources.*



cial district taxes. Valuations are established annually as of March 1, and taxes are levied in the first week of September. Property taxes are collected in two equal installments becoming delinquent December 10 and May 10.

The delinquency penalty is six percent, and an additional interest charge of one percent per month for the first year, and one-half of one percent per month thereafter is charged. Delinquent property is sold to the state at the end of the fiscal year. Property owners may redeem within five years on payment of delinquencies, penalties and interest.

The table on page 16 shows the secured tax levies and delinquencies by fiscal year and by county for the past five years.

**REPRESENTATIVE TAX RATES**

The following table shows 1975/76 tax rates in six representative tax code areas in the agency. Taxes for California City, not shown, include an annexation fee by which property owners in California City pay off the tax levies paid by the balance of agency tax payers prior to California City's annexation. Portions of Palmdale, both incorporated and unincorporated, are outside the agency. The tax code area shown is in the district.

**LARGEST TAXPAYERS**

With the assistance of the Assessor's Office in both Kern and Los Angeles Counties, the agency's largest tax-

**ANTELOPE VALLEY-EAST KERN WATER AGENCY**  
**TOTAL TAX RATES PER \$100 ASSESSED VALUATION IN REPRESENTATIVE AREAS, 1975/76**

Tax Code Area	Los Angeles County		Ventura County
	Lancaster	Palmdale (unincorporated)	Ventura County (unincorporated)
	4831	7072	62024
County	\$ 4.5185	\$ 4.5185	\$ 2.7993
Schools	6.2197	6.4680	5.6506
Flood control	—	—	0.3217
Hospital	0.0384	0.0384	—
Roads	0.0634	0.0634	—
Fire	0.7838	—	0.7517
Library	0.2792	0.2792	0.1895
Antelope Valley-East Kern water	0.9346	0.9346	0.9346
County waterworks district	0.3035	0.5391	—
Lighting	0.5649	—	—
Other	0.6741	0.5437	—
Total	\$14.3801	\$13.3849	\$10.6474
Land only and L&I rates	—	—	\$ 0.0737

Tax Code Area	Kern County		East Kern County
	Mojave	Boron	(unincorporated)
	94-016	98-007	119-004
County	\$ 2.9155	\$ 2.9155	\$ 2.9155
City or municipality rate	—	2.1000	—
Schools and special education	5.9333	5.1788	5.7745
Antelope Valley-East Kern water	0.9346	0.9346	0.9346
Fire	0.6716	0.6716	0.6716
Other	0.2015	—	0.0250
Total	\$10.6565	\$11.8005	\$10.3212
Land only and L&I rates	\$ 0.0200	\$ 0.0200	\$ 0.0087

payers have been identified and are shown on the following table. Total assessed valuation for each taxpayer is not available and therefore is not shown.

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**ANTELOPE VALLEY-EAST KERN WATER AGENCY  
LARGEST TAXPAYERS, 1974**

American Telephone and Telegraph  
Atchison, Topeka and Santa Fe  
Continental Telephone  
Great Western Cities  
Lockheed Aircraft Co.  
Pacific Gas and Electric  
Pacific Telephone and Telegraph Company  
Security Title Insurance Company  
Southern California Edison  
Southern Pacific Company  
Title Insurance and Trust Company  
U. S. Borax and Chemical Corporation

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Sources: Kern County, Assessor's Office; Los Angeles County, Assessor's Office.

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**TAX RATE LIMITATIONS**

In 1972 and 1973 the California Legislature passed legislation to stabilize increases in ad valorem property taxes. This legislation generally limits tax rates to that which an agency levied in 1972/73, if it has no statutory limit. Tax rate increases are either authorized by a majority of the voters, or automatically stepped annually, based on a combination of growth in population and the California Price Index. Tax rates and levies for general obligation bonds are not restricted.

Tax rates and levies to meet contractual obligations entered into prior to January 1, 1973 are not restricted under the same statutory provisions referred above.

**DEBT STATEMENT**

The accompanying statement of direct and overlapping debt shows the debt of the agency and the entities which it overlaps. The assets and liabilities of entities within the agency's boundaries are not related to the agency's own responsibilities.

**REVENUE AND EXPENSE HISTORY**

The following table shows a history of agency revenues and expenditures for the past six years.

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**ANTELOPE VALLEY-EAST KERN WATER AGENCY  
REVENUE AND EXPENSE HISTORY**

	1969/70	1970/71	1971/72	1972/73	1973/74	1974/75
<b>REVENUE:</b>						
Taxes <sup>①</sup> .....	\$1,720,579	\$1,775,115	\$2,588,165	\$2,672,911	\$2,856,385	\$3,486,853
Interest income .....	60,345	21,062	20,830	45,059	83,341	90,603
Rental and other income .....	339	—	200	175	49	—
Water sales .....	—	—	920	1,427	783	36,179
Total .....	\$1,781,263	\$1,796,177	\$2,610,115	\$2,719,572	\$2,940,558	\$3,613,635
<b>EXPENSE:</b>						
Administrative .....	\$ 135,657	\$ 119,055	\$ 127,118	\$ 158,313	\$ 164,230	\$ 200,725
Debt service .....	—	—	—	—	—	44,334
<b>Capital Items:</b>						
Participation in state water project .....	\$1,400,482	\$1,514,732	\$1,816,052	\$2,216,956	\$2,509,534	\$2,520,074
Capital outlay, less-contributions .....	311,264	911,028	12,286	—	—	—
Survey, investigation, plant and equipment <sup>②</sup> .....	13,450	—	1,060	3,814	21,751	91,203
Total .....	\$1,860,853	\$2,544,815	\$1,956,516	\$2,379,083	\$2,695,515	\$2,856,336
<b>NET REVENUE (Loss) .....</b>	<b>\$ ( 79,590)</b>	<b>\$ ( 748,638)</b>	<b>\$ 653,599</b>	<b>\$ 340,489</b>	<b>\$ 245,043</b>	<b>\$ 757,299</b>

<sup>①</sup> Includes annexation charges.

<sup>②</sup> Includes depreciation and intangible plant expense.

Source: Wheeler, Knox & Co., Certified Public Accountants.

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**ANTELOPE VALLEY-EAST KERN WATER AGENCY  
DIRECT AND OVERLAPPING BONDED DEBT**

	Percent Applicable	Debt January 27, 1976
Los Angeles County.....	1.305%	\$ 327,070 <sup>①</sup>
Los Angeles County Building Authorities.....	1.305	2,500,911
Antelope Valley-East Kern Water Agency.....	100.000	42,000,000 <sup>②</sup>
Antelope Valley Hospital District Authority.....	80.081	7,687,776
Antelope Valley Community College District.....	80.189	2,613,603
Antelope Valley Unified High School District.....	79.003	4,820,145
Lancaster School District.....	100.000	998,000
Palmdale School District.....	50.787	898,422
Westside Unified School District.....	97.203	2,882,069
Other school districts.....	Various	866,267
Water districts.....	100.000	2,861,000
Sanitation Districts No. 14 and 20.....	100 & 13	1,612,700
Rosamond Community Services District.....	100.000	990,000
City of California City, Community Services District and 1915 Act Bonds.....	100.000	5,764,000 <sup>③</sup>
Other districts.....	Various	332,339
Total Direct and Overlapping Bonded Debt.....		\$77,154,302

	Ratio Debt to:		
	Assessed Valuation (\$459,555,912)	Population (116,000)	Estimated Full Market Value (\$1,841,385,662)
Direct debt .....	9.14%	362.07	2.28
Total debt .....	16.79	665.12	4.19

① Excludes share of \$238,113,959 Los Angeles County lease-purchase obligations (\$3,107,387).

② Including \$19,000,000 to be sold January 27, 1976.

③ 1915 Act Bonds as of July 2, 1974.

Source: Compiled in cooperation with California Municipal Statistics, Inc.



*Above: Antelope Valley, as photographed by a NASA satellite.  
Below: Ashland Chemical Company is located in Mojave. Southern Pacific and Santa Fe railroads cross in Mojave, providing rail freight service. (Mojave Chamber of Commerce photo)*



Antelope Valley is a triangular-shaped high desert plain covering over 3,000 square miles, 2,383 square miles of which comprise AVEK. The valley traverses three California counties: North Los Angeles County, East Kern County and Northeast Ventura County. The valley is located in an area bordered by the El Paso Mountains to the north and by the Sierra Nevada and Tehachapi Mountain ranges to the northwest. The San Gabriel Mountains form the area's southern boundary and the San Bernardino County line its eastern boundary.

The valley is located approximately 31 air miles and 61 freeway miles from the city of Los Angeles Civic Center. A network of highways, railways and air service connect communities in the Antelope Valley to Los Angeles, Bakersfield, San Bernardino and to other major cities in California and the United States.

The Antelope Valley was established as an agricultural community in the late 1880's, when alfalfa was successfully produced by irrigated farming. Agriculture

continues to be an important segment of the economy. Mining, manufacturing, military and government employment have increased in importance as the economy continues to diversify. U.S. Borax and Chemical Corporation, the world's largest supplier of borates, is located in the northeastern portion of the valley. Aircraft manufacturing is the dominant manufacturing industry, with major aircraft companies located at Air Force Plant 42 in Palmdale. Electronic components, fabricated metals, garments, concrete and animal feed are also manufactured in Antelope Valley. Edwards Air Force Base, one of the nation's largest Air Force installations, is located in central Antelope Valley and is one of the area's largest employers.

Principal urban communities in the Antelope Valley include Lancaster, which serves as the valley's government, economic, commercial and cultural center, and the City of Palmdale. Also within Los Angeles County other major communities include the following: Acton,

ANTELOPE VALLEY-EAST KERN WATER AGENCY  
DESCRIPTION OF AGENCY

	Los Angeles County		Kern County		Ventura County		Total
	Number	Percent	Number	Percent	Number	Percent	
Area (square miles).....	994	41.7%	1,377	57.8%	12	0.5%	2,383
1975 Population .....	90,500	78.5%	25,500	21.5%	0	—	116,000
1975/76 Assessed Valuation①.....	328.8	71.6%	130.0	28.2%	0.7	0.2%	459.5
Persons per square mile.....	91.5		18.2		0		48.7

① In millions of dollars.  
Sources: Boyle Engineering Corporation; Kern, Los Angeles and Ventura County Assessors.

## ANTELOPE VALLEY-EAST KERN WATER AGENCY POPULATION GROWTH

Year	Los Angeles County Portion	East Kern County Portion	Total
1940.....	10,734	3,971	14,705
1950.....	20,270	8,635	28,905
1960.....	68,170	18,709	86,879
1970.....	83,540	23,646	107,186
1975 (est.).....	90,500	25,500	116,000

Source: Los Angeles County Department of Regional Planning and Kern County Planning Department.

Quartz Hill, Gorman, Pearblossom, and Littlerock. In Kern County the major communities are Mojave, Rosamond, Boron, Edwards, and California City.

Both the City of Palmdale and the community of Littlerock, though discussed in this section, are outside AVEK's boundaries. They are served by their own water and irrigation districts.

### CLIMATE

Antelope Valley has a high desert climate with low annual rainfall. In the northern portion of the valley rain-

fall averages about 5 inches of rain per year, and in the southern portion, around Lancaster and Palmdale, rainfall averages about 8 inches per year.

According to the U.S. Weather Bureau, temperatures during the summer months range from an average minimum of 65° to an average maximum of 99°. In winter, minimum temperatures average 31° with an average maximum of 58°. The moderate climate has been a factor in stimulating agricultural production and contributes to the Antelope Valley's attractiveness to industry.

### POPULATION GROWTH

The Antelope Valley was at one time one of the fastest growing areas in California. In response to the establishment of the aviation industry, the area experienced its greatest growth period during 1940-1960. From a population of 14,705, the population doubled to 28,905 in 1950, and then tripled to about 87,000 in 1960. Population growth has since stabilized and the current population of the area is 116,000. Growth of population since 1940 is shown at left.

### EMPLOYMENT

Employment trends for Lancaster, the principal urban community in Antelope Valley, are shown in the following table. The statistics for 1960-1968 represent the communities of Lancaster, Palmdale and Quartz Hill. In 1969

## LANCASTER COMMUNITY EMPLOYMENT BY INDUSTRY 1960-1973

Industry	1960 <sup>①</sup>	1965 <sup>①</sup>	1968 <sup>①</sup>	1969 <sup>②</sup>	1970 <sup>②</sup>	1975
Agriculture, forestry and fisheries.....	350	400	500	1,600	1,700	n.a. <sup>③</sup>
Mining .....	—	—	—	—	—	—
Contract construction .....	850	800	900	3,000	2,900	—
Manufacturing .....	3,100	2,300	2,500	2,800	5,000	—
Durable goods .....	n.a.	1,750	1,900	n.a.	n.a.	—
Non-durable goods .....	n.a.	550	600	n.a.	n.a.	—
Transportation, communications and utilities.....	550	800	900	800	900	—
Trade, wholesale and retail.....	3,200	3,300	3,600	3,700	4,000	—
Wholesale trade .....	n.a.	200	300	n.a.	n.a.	—
Retail trade .....	n.a.	3,100	3,300	n.a.	n.a.	—
Finance, insurance and real estate.....	300	400	400	900	1,000	—
Service .....	1,300	2,000	3,500	5,000	5,300	—
Government .....	2,250	3,500	3,700	5,000	5,500	—
Military .....	n.a.	n.a.	n.a.	n.a.	n.a.	—
Total .....	11,900	13,500	16,000	22,800	26,300	27,770

<sup>①</sup> Includes Lancaster, Palmdale and Quartz Hills.

<sup>②</sup> Includes all of the North Los Angeles portion of Antelope Valley.

<sup>③</sup> Employment figures not disaggregated.

Sources: "Community Economic Profiles", Department of Human Resources, Naval Weapons Center, Antelope Valley Board of Trade and "Community Labor Market Bulletins," Department of Employment, State of California.



the California Employment Development Department revised their data-gathering procedures, and the 1969 and 1970 statistics were expanded to include the entire North Los Angeles County portion of Antelope Valley.

The 1970 Lancaster Community Labor Market Bulletin was the last issued by the California Employment Development Department (EDD). Since then, employment statistics for Lancaster have not been disaggregated by industry. EDD's 1975 estimate of employment for the Lancaster-Palmdale area is 27,770.

Unemployment, estimated at 10.3 percent, is slightly above that of Los Angeles County's as a whole which is 10.2 percent.

## INDUSTRY

Manufacturing is the largest segment of employment. Aircraft and aerospace production is Antelope Valley's principal industry.

**Air Force Plant 42.** U.S. Air Force Plant 42, located between Palmdale and Lancaster, is a 6,000-acre assembly and test center of military aircraft. Antelope Valley's major industrial employers are the aircraft manufacturers, serving under government contract, at Plant 42. They include Lockheed, Rockwell International, Northrop and McDonnell-Douglas. Approximately 9,500 people are employed at Plant 42. Rockwell International has received the \$1.8 billion Space Shuttle Orbiter contract.

The facilities at Plant 42 are owned by the federal government and leased to government contractors. Lockheed-California's L-1011 Tri-Star assembly plant, however, is privately owned. Covering 533 acres, it is located immediately next to the government facilities and is valued at over \$30 million. Lockheed also ranks as Antelope Valley's largest single industrial employer with about 4,300 people on its payroll.

**Edwards Air Force Base.** Edwards Air Force Base, located on the western edge of the Mojave Desert, is the Air Force's second largest installation, covering over 300,000 acres. Facilities at Edwards AFB include 123 aircraft, 19 hangars, and 238 acres of parking aprons. There are two runways: a 15,000-foot main runway and the 36,660-foot Rogers Lakebed runway, which serves as an emergency landing field for experimental aircraft.

Research, development, testing and evaluation of aircraft to be used by Air Force command groups is the primary mission of the Air Force Flight Test Center at Edwards Air Force Base. A member of the Air Force Systems Command, it is currently conducting over 60 technical test programs. Approximately 4,700 people are employed at the Air Force Flight Test Center. This includes 1,852 civilians and 2,847 military. In 1974, total payroll was \$57 million.

Together with the Air Force Flight Test Center, three tenant organizations are located at Edwards. These include the Air Force Rocket Propulsion Laboratory whose

mission is research and development of rocket propulsion systems, and employs 450 people. Another tenant is the U.S. Army Aviation Systems Test Activity, responsible for conducting engineering flight tests on Army aircraft. The National Aeronautics and Space Administration has a Flight Research Center at Edwards Air Force Base which employs 700 people, including sub-contractors, on a \$25-30 million budget. NASA will spend \$10 million for construction of a new hanger, ramp and other structures required for testing of the Space Shuttle Orbiter. In addition to these tenants, private aircraft companies also lease space on the Air Force facilities. In total, about 8,400 people are employed at Edwards Air Force Base.

**Carbon Black Plants.** In addition to the aircraft and aerospace industry, the production of electronic components, fabricated metals, carbon products, concrete and concrete building materials, poultry products and garments are important components of Antelope Valley's economy. Two of the three carbon black plants located west of the Mississippi are in Antelope Valley and produce over 50 million pounds of carbon black annually. Carbon black, used by the rubber industry in the manufacture of automobile tires, is produced by the Ashland Chemical Company and the Columbian Carbon Corporation in Mojave. In addition, the Great Lakes Carbon Company is the largest manufacturer of synthetic graphite electrodes west of the Mississippi. Over 7,500 tons of graphite are produced annually at their \$5 million plant at Rosamond. Great Lakes Carbon employs about 130 people on a payroll of \$1.5 million.

The table on page 29 identifies the major industrial employers in the Antelope Valley.

## GOVERNMENT

Federal, state and local government, excluding the military, is the second largest employment group in the Antelope Valley. Major government facilities include Edwards Air Force Base, the regional offices of Los Angeles County in Lancaster, and the Federal Aviation Administration Air Traffic Control Center, located at the edge of Plant 42. The latter is responsible for air traffic over the southwestern portion of the United States (Southern California and parts of Nevada, Utah and Arizona), and employs nearly 600 people.

## MINING

In California, Kern County ranks first among counties in mineral production. Total mineral production in Kern County is valued at \$533 million. An important source of Kern County's minerals is the Antelope Valley.

**U.S. Borax and Chemical Corporation.** The world's leading producer of borates and boron chemicals, the U.S. Borax and Chemical Corporation's open pit mine is located at Boron in the East Kern County portion of Antelope Valley. Boron is used in products including



U.S. Borax and Chemical Corporation is located in Boron.  
The company is planning an expansion late this year to  
meet increased demand for its borate products.  
*(Frank Stubbings photo)*



## ANTELOPE VALLEY REGION MAJOR INDUSTRIAL EMPLOYERS

	Employees
U.S. Air Force Flight Test Center Edwards Air Force Base.....	4,699*
Lockheed Aircraft Co., Lockheed-California Co....	4,300
U.S. Borax and Chemical Corporation.....	950
Federal Aviation Administration.....	586
National Aeronautics & Space Administration...	700
U.S. Air Force Rocket Propulsion Laboratory....	450
McDonnell-Douglas Corporation.....	350
General Electric Company.....	270
California Portland Cement.....	251
Monolith Portland Cement.....	205
Comarco Inc. Engineering Division.....	200
Antelope Valley Turkey Growers Association....	160
Northrop Corporation, Aircraft Division.....	150
General Dynamics—Fort Worth.....	150
Great Lakes Carbon Company.....	132
Pacific Western Industries, Inc., Los Robles Cement Plant.....	124
Southern California Edison Company.....	113
BR & BR Sportswear.....	100

	Employees
Control Data Corporation.....	100
Ryckebosch, Victor, Inc.....	100
Antelope Valley Press.....	90
Revere Extruders, Inc.....	72
Asphalt Construction Company.....	70
Jet Propulsion Laboratory, California Institute of Technology.....	62
Daily Ledger Gazette (Lancaster).....	60
Spencer California .....	60
Bouquet Fashions.....	50
Consolidated Rock Products .....	50
Southern California Gas Company.....	44
Ashland Chemical .....	40
Texas Instruments, Inc.....	40
Dumas & Canez.....	35-40
Cities Service Company.....	32
Arrowsmith Tool & Manufacturing Corporation...	31
Comarco, Inc.....	30
AV Ready Mix, Inc.....	25-30

\* Includes 1852 civilians, 2847 military personnel.

Source: Antelope Valley Board of Trade Industrial and Transportation Directory, 1974.

29

fiberglass, heat resistant glass, porcelain enamel, soaps, detergents, fertilizers, space and missile fuels, cosmetics and medicine. U.S. Borax has a multi-million dollar facility at Boron and has been actively undertaking an expansion program to meet world-wide demand for boron. In 1974 the corporation spent nearly \$3.5 million on plant improvements. U.S. Borax plans a \$54 million expansion at its mine and refinery at Boron, expected to increase production up to 35 percent. With over 900 employees, U.S. Borax and Chemical Corporation is one of AVEK's largest taxpayers. Payroll at U.S. Borax totals about \$1 million per month.

**Cement Production.** The Antelope Valley also ranks as one of the major cement producers in California. California Portland Cement Company at Mojave, and Monolith Portland Cement Company at Tehachapi, are two major cement plants. Monolith lies just outside the boundaries of AVEK. Combined, these plants employ over 450 people with a multi-million dollar payroll and plant facilities valued at about \$42 million. Cement production has been affected by the general slowdown in construction activity but the cement industry expects an upturn as the economy improves.

Clay, sand, gravel, alumina bauxite, magnesium and gold are other minerals found throughout the Antelope Valley.

## AGRICULTURE

Agriculture dominated the Antelope Valley economy until about 1950. A long growing season, fertile soil and available water, coupled with a good network of transportation systems, have established the area as an important agricultural community.

Total crop production in the Antelope Valley for both Kern and Los Angeles Counties exceeds \$22,000,000. Field crops yield the highest value at \$19,500,000 in 1974. The principal field crop is alfalfa, worth about \$12,321,000. Field crops are grown on 189,914 acres in the Antelope Valley, or 99 percent of the total cultivated bearing acres in 1974.

Grains, other than alfalfa, peaches, pears, and sugar beets and other fruits and nuts are major crops which individually gross about \$500,000 annually. Vegetables such as cantaloupes, carrots and melons are also produced in the valley. Fruit crops had a good year in 1974, and pear production in particular exceeded \$1,000,000 in 1974. Major single products and their 1974 valuations are:

Alfalfa .....	\$12,321,000
Turkeys .....	10,612,000
Cattle and calves.....	3,500,000
Sugar beets .....	2,500,000
Dry onions.....	2,360,000

Livestock production, as shown below, is important in the Antelope Valley. Production exceeded \$23,400,000 in 1974, with turkeys as the principal commodity accounting for 45 percent of livestock production. Cattle, hogs, horses and sheep are other animals raised in the area.

The accompanying table indicates crop production in the Antelope Valley. Kern County's portion of the region's crop production is limited to field crops. Production is about \$6,700,000 in 1974, the only year for which statistics are available.

Urban land uses continue to gradually encroach upon agricultural lands in the Antelope Valley. However, county planners estimate the role of agriculture will remain important in the Antelope Valley for years, even as actual acreage declines. The problems of water costs and higher land taxes are being alleviated by the availability of State Water Project water and by reductions in assessed valuation on agricultural lands, as explained in an earlier section.

## TRANSPORTATION

The Antelope Valley Freeway (State Route 14) runs through the major communities in the valley and is the primary connecting highway to the Los Angeles metropolitan area and ski and fishing resorts in the high Sierras.

Route 58 and State Highway 138 provide east-west transportation to Bakersfield and San Bernardino.

The California State Division of Highways has also proposed five additional freeways to serve the Antelope Valley. Route 58 connecting Mojave and Boron is currently under construction, and portions of the freeway have been completed. Proposed Route 138 between Gorman and the San Bernardino County line is planned for construction after 1975. Three additional freeways that will link the Antelope Valley with the eastern San Fernando Valley have been proposed. The routes of these freeways have not as yet been adopted, and if they are, construction will not begin until after 1980.

Both the Southern Pacific and Santa Fe railroads provide transcontinental service in and out of Antelope Valley. Three major communities—Mojave, Lancaster and the City of Palmdale—are located along Southern Pacific's San Francisco-Los Angeles main tracks. The Colton-Palmdale by-pass routes freight around Los Angeles to Southern Pacific's \$39 million freight classification yard at San Bernardino.

Airport facilities are available at Fox Field in Lancaster, Plant 42 in Palmdale and Mojave Airport. Golden West Airlines provides daily passenger and freight service at Palmdale and Mojave Airport.

## ANTELOPE VALLEY LIVESTOCK PRODUCTION, 1974

### Los Angeles County

Cattle and calves.....	\$ 3,500,000
Sheep .....	1,161,000
Poultry .....	14,281,000
Other .....	750,000
Total .....	\$19,692,000

### Kern County

Poultry (turkeys).....	\$2,105,000
Other .....	1,695,000
Total .....	\$3,800,000

Sources: Los Angeles County Veterinarian, Kern County Agricultural Commissioner.

## ANTELOPE VALLEY CROP PRODUCTION 1970-1974

Los Angeles County	1970		1972		1974	
	Bearing Acres	Value	Bearing Acres	Value	Bearing Acres	Value
Fruits and nuts.....	1,855	\$1,066,500	1,591	\$1,425,000	1,540	\$ 2,249,000
Field crops .....	172,500	7,797,050	150,900	7,299,000	164,970	12,759,000
Vegetables .....	160	132,000	165	291,000	405	369,000
Nursery stock/cut flowers.....	70	81,000	75	100,000	70	115,000
Apiary products (honey, beeswax)...	22,000*	88,000	16,000*	173,000	25,000*	563,000
Total .....	174,585	\$9,164,550	152,731	\$9,726,072	166,985	\$16,055,000
<b>Kern County</b>						
Field crops.....	n.a.	n.a.	n.a.	n.a.	24,944	\$ 6,718,400

\* Number of colonies.

Source: County Agricultural Commissioners.



The Los Angeles Department of Airports has spent over \$50 million to acquire land for the proposed 17,700-acre Palmdale Intercontinental Airport. About 82 percent of the land needed has been purchased. Construction is planned to begin in the mid-1980's. The Palmdale Intercontinental Airport is planned to handle 10 million passengers annually, when completed in about 1990.

## MAJOR COMMUNITIES

The major communities in Antelope Valley are dispersed over the region's 3,000 square mile area. The communities represent major industrial areas which are served by a good network of highway, airport and railway systems.

**Lancaster.** The principal urban community is Lancaster, located along the Antelope Valley Freeway and about an hour's drive from Los Angeles. Covering approximately 36 square miles, Lancaster serves as the government, commercial, residential, and cultural center of the area. Regional offices of Los Angeles County, banking institutions, and major retail establishments are located in the main sector of the community. A large number of personnel employed at nearby Edwards Air Force Base and U.S. Air Force Plant 42 reside in the community. With a population of 43,000, Lancaster is the most populous of the Valley's communities.

**Palmdale.** Palmdale is the only incorporated city in the Los Angeles County portion of Antelope Valley. It is the site of U.S. Air Force Plant 42 and the proposed Palmdale Intercontinental Airport. It is the second largest community in Antelope Valley, with a population of 12,000 in the city limits. As discussed earlier, part of Palmdale is located out of AVEK's district boundaries and is served instead by the Palmdale Water District.

**Rosamond.** Rosamond is located along the Antelope Valley Freeway above Lancaster and in Kern County. It is situated at the entrance of Edwards Air Force Base and its economy is based largely on governmental employment and agriculture. Industries such as the Great Lakes Carbon Corporation, manufacturer of synthetic graphite, complete Rosamond's economic base.

**Mojave.** Mojave's role as transportation center dates back to the 1880's when it was the terminus for the famous twenty-mule teams that hauled borax out of the Death Valley. It is located at the intersection of the Southern Pacific and Santa Fe railroads and at the intersection of two major highways, the Antelope Valley Freeway to Los Angeles and Highway 58, which runs in an east-west direction across the Valley. Air service is provided at the Mojave Airport which is administered by the East Kern Airport District. The district has recently completed a master plan for future airport development. Major industrial employers in Mojave include Revere Extruders, an aluminum extrusion plant, California Portland Cement Company, Ashland Chemical Company, Columbian Carbon, and General Electric.

**Boron.** Boron is located in the northeastern corner of Antelope Valley, off of Highway 58. Boron's economy is centered around the U.S. Borax and Chemical Corporation, which began operations in 1926 and currently employs about 950 people.

**California City.** Incorporated in 1965, California City has been master planned and is currently being developed by Great Western Cities for orderly residential and commercial growth. The city's master plan provides for residential areas, recreational activities, civic and shopping facilities, light industry, and large areas of open space and parks. The city has recently dedicated its \$250,000 civic center. Five industries are located at California City's industrial park.

The city's airport, in addition to serving the industrial park and local residents, is being developed for recreational uses. Parachuting and soaring activities and instruction are available at the airport, which has a 6,000-foot runway.

Other communities in the Antelope Valley include Pearblossom and Littlerock, located about 10 and 15 miles southeast of Palmdale. Both communities are known for their production of pears and peaches. Littlerock is served by the Littlerock Creek Irrigation District, which has an independent contract for the delivery of State water, and is outside of AVEK's boundaries. Quartz Hill is located to the west of Lancaster and is an important producer of almonds. Gorman, located at the far western corner of the Valley near Interstate 5, and Acton, located in the foothills of the San Gabriel Mountains, are within the boundaries of AVEK and have no major industries.

## HIGHER EDUCATION

**Antelope Valley College.** Antelope Valley College is a public junior college in Lancaster. The college offers two types of curriculum. The transfer curricula fulfill requirements necessary for junior standing at a four-year institution. The occupational curricula, on the other hand, is generally a two-year program designed for immediate employment. The occupational programs at Antelope Valley College are carefully developed to integrate with the local economy. Representatives from business, industrial, and professional firms in the community, and in the greater Los Angeles area, serve on advisory committees and assist in the development of specific occupational curricula. The college currently offers Associate of Arts degrees in such fields as agriculture, air-conditioning, air traffic control, aircraft manufacturing and maintenance, allied health, business, engineering and electronics. The 110-acre college campus is valued at \$7 million. Campus facilities, in addition to instructional buildings, include the administration building, a student center and cafeteria, a gymnasium, an enclosed swimming pool building, an athletic stadium, and a performing arts complex. Current enrollment is approximately 6,200.

**Cerro Cosso College.** Part of the Kern Community College District, Cerro Cosso College only a year ago moved to its new campus facilities in the city of Ridgecrest, located about 80 miles north of Lancaster. While Ridgecrest is not a member of AVEK, the College does serve the communities of Mojave, Boron and Edwards Air Force Base. Total enrollment at the college is 4,200. Like Antelope Valley College, it offers both a transfer curricula and an occupational curricula. The college campus covers 60 acres, and development of the campus' basic facilities will continue during the next three years.

In addition to these two educational institutions, extension courses administered by UCLA, the University of Southern California, and California State University at Northridge are available at Edwards Air Force Base. The main campuses of these three universities are also within a 60-90 minute commute drive from Lancaster.

## COMMUNITY SERVICES

**Hospitals.** Health services in the Antelope Valley are provided by six hospitals. The larger hospitals are located in the Lancaster area, with smaller health facilities located in the outlying portions of the valley. The Antelope Valley Hospital Medical Center is a 145-bed unit, operated by the Antelope Valley Hospital District. It is the largest medical facility in the regional area and offers the most comprehensive range of hospital care. Cobalt treatment, coronary care, isotope therapy, physical and occupational therapy, as well as neurological and mental health services are available at the medical center. The hospital recently completed its \$9.6 million expansion program. The additional wing houses their new cardiopulmonary department and their hemo-dialysis unit and 39 more beds.

Lancaster Community Hospital is a 99-bed private hospital. Its facilities include a nuclear medicine department, an 8-bed critical care unit, and a newly constructed pediatrics unit. Other facilities serving the Lancaster area are Mira Loma Hospital in Lancaster and Palmdale General Hospital. Mira Loma is a 126-bed hospital operated by Los Angeles County. Palmdale General Hospital, on the other hand, is a general proprietary hospital. It offers a full range of hospital services, including psychiatric care. Currently the hospital has 83 beds and has approval to expand their facilities by 53 more beds. Edwards Air Force Base has its own 60-bed hospital with a staff that includes specialists in pediatrics, obstetrics, surgery, and internal medicine. Finally, in the northern portion of Antelope Valley at Boron is Citizens Hospital, a 13-bed unit. Citizens Hospital provides general hospital care, including surgery and cardiac treatment. Patients requiring more intensive care are normally transferred to Antelope Valley Hospital Medical Center.

**Fire Protection.** The greater part of Antelope Valley is provided fire protection service by both Los Angeles and Kern Counties. The incorporated cities, except California City, generally contract for fire protection from

the county governments, and the unincorporated areas receive regular county service. Lancaster, the largest community, is served by the Los Angeles County Fire Protection District. Three fire stations, four engine companies with a force of 33 men, and a supplemental volunteer force of 20 men protect Lancaster from fire hazards and provides paramedical emergency services. California City is the only incorporated area to have its own fire department.

**Police Protection.** As for fire protection, police protection for the area is generally provided by Los Angeles and Kern County sheriffs. California City, however, maintains its own police force of 9 officers and 12 reserves. Over 130 officers from both Kern and Los Angeles Counties provide law enforcement service. In addition to the county sheriff's offices, the California Highway Patrol, maintaining offices in Lancaster and Mojave, has a 75-man force patrolling the Antelope Valley.

Search and rescue teams, ready for emergency action, supplement police protection. A 28-member search and rescue team and two helicopter equipped paramedic detail serve the Palmdale-Lancaster area. Another 25-member search and rescue team serves the Boron-Mojave area.

## UTILITIES

Sewer and water service are provided by local government agencies, serving individual communities. Lancaster, the major urban community, is provided sewer service by the Los Angeles County Sanitation District No. 14. Service is provided by a treatment plant with a capacity of 7 million gallons per day. The plant provides primary and secondary treatment, and tertiary treatment for ½ million gallons. Water for Lancaster is supplied by Los Angeles County Waterworks District No. 4, which has a maximum pumping capacity of 25.8 million gallons per day. Special districts such as Desert Lake and Boron Community Service Districts, Mojave Public Utility District and Rosamond Community Service District provide their individual communities with water and sewer service.

Palmdale Water District serves the incorporated portion of Palmdale, and Littlerock Creek Irrigation District serves the community of Littlerock, located about five miles south of Palmdale. These two districts are located in the Antelope Valley but have independent contracts for delivery of water from the State Water Project.

Electrical service is provided by Southern California Edison Company in the Los Angeles County area and by Pacific Gas and Electric Company in the East Kern County portion of Antelope Valley. Southern California Edison, an investor-owned electric utility serving more than 7.3 million people in Central and Southern California, has over 40,000 customers in Antelope Valley. As part of its expansion and improvement program it spent nearly \$3.0 million on electrical distribution lines and facilities. Of this total, \$1.9 million went to opera-



The joshua tree, indigenous to the southern California region, is found along the northern edge of the Mojave Desert at elevations of 2,000 to 6,000 feet.

*(C. D. Smith photo)*



The Federal Aviation Administration (FAA) operates an air traffic control center adjacent to Plant 42.

*(Frank Stubbings photo)*



tion and maintenance and \$1.1 million represented new customers and improvements.

Telephone service is divided among three companies. General Telephone Company serves the Lancaster-Quartz Hill area, Pacific Telephone Company serves Rosamond, Palmdale and Mojave, and Continental Telephone provides service in Boron and California City. Total telephone customers exceed 55,000. General Telephone will be spending \$1.4 million for new switching equipment, underground cables, terminals and other outside plant equipment in 1975. It serves about 35,000 customers and expects this total to increase to 36,700 by the end of 1975. Pacific Telephone, with a \$20 million investment in facilities, also expects to spend another \$2 million in new construction during 1975.

#### REAL ESTATE AND TRADE

The community of Lancaster, which covers an area of approximately 36 square miles, serves as the residential, commercial and cultural center of the Antelope Valley. Building activity for Lancaster and Palmdale are

shown in the following table. Lancaster, the unincorporated portion of Palmdale, and parts of the city of Palmdale are within AVEK's boundaries. According to the table, housing valuation has generally exceeded commercial and industrial building valuation. One exception,

#### LANCASTER RETAIL SALES DATA

1960.....	\$ 73,156,650	1968.....	\$135,341,700
1961.....	77,098,350	1969.....	150,755,400
1962.....	88,213,350	1970.....	199,485,800
1963.....	98,947,800	1971.....	214,332,500
1964.....	104,054,850	1972.....	223,266,700
1965.....	105,548,550	1973.....	231,000,000
1966.....	115,522,050	1974.....	370,179,000*
1967.....	123,836,200		

\* Up to third quarter, 1974.

Source: Lancaster Chamber of Commerce, 1974.

#### LANCASTER-PALMDALE AREA TOTAL BUILDING PERMITS, VALUATION, AND DWELLING UNITS, 1969-1974

	Building Permits	Housing Units	Valuation Housing Units	Valuation Commercial / Industrial and Other	Total Valuation
<b>Lancaster</b>					
1969.....	1,511	390	\$ 7,552,744	\$ 4,072,631	\$11,625,375
1970.....	1,920	690	10,771,380	6,497,960	17,269,340
1971.....	1,946	875	14,127,820	3,959,340	18,087,160
1972.....	1,899	755	13,651,880	4,731,030	18,382,910
1973.....	2,017	1,082	19,884,270	6,993,930	26,878,200
1974.....	1,521	180	5,155,960	10,461,950	15,617,910
<b>Palmdale, Unincorporated</b>					
1969.....	637	157	\$ 2,555,200	\$ 1,254,002	\$ 3,809,202
1970.....	608	212	2,939,740	1,208,515	4,148,255
1971.....	525	133	2,163,300	1,030,440	3,193,740
1972.....	594	108	1,948,810	1,617,110	3,565,920
1973.....	482	124	2,682,490	1,034,640	3,717,130
1974.....	584	105	2,665,140	1,321,150	3,986,290
<b>Palmdale, Incorporated</b>					
1969.....	620	219	\$ 3,197,750	\$ 9,899,012	\$13,096,762
1970.....	429	188	2,046,300	4,206,124	6,252,424
1971.....	351	97	1,271,700	3,848,940	5,120,640
1972.....	458	436	4,848,450	2,957,550	7,806,000
1973.....	407	544	6,018,830	856,180	6,875,010
1974.....	218	27	678,800	2,663,620	3,342,420

Source: Los Angeles County Department of County Engineer.



however, was the \$10.5 million commercial and industrial building valuation for Lancaster in 1974, which was twice the housing valuation and represented a 49 percent increase over the previous year. Additions to the Antelope Valley Hospital Medical Center accounted for \$4.5 million of the 1974 commercial and industrial valuation.

Retail sales in the Antelope Valley exceeded \$265 million in 1973. About 87 percent of this total was transacted in Lancaster. The following table indicates retail sales in Lancaster since 1960.

## RECREATION AND TOURISM

A wide range of recreational opportunities are available throughout the Antelope Valley or within easy driving distance. For the sports-minded, there are facilities for hunting, fishing, camping, hiking and skiing in the surrounding Angeles National Forest, in the San Gabriel Mountains and the Tehachapi mountain range. Horseback riding, swimming, boating, and other water activities may be pursued at Hughes Lake or Elizabeth Lake, located about 16 miles from Lancaster, or at the Little-rock Reservoir. For sports car enthusiasts, the Willow Springs Raceway is located near Rosamond. In addition, bicycle enthusiasts can now enjoy the new California Aqueduct Bikeway, which when completed will extend 107 miles through the Antelope Valley. Sixty-eight miles of bikeway has so far been completed on the paved service roadways, running along the California Aqueduct. Rest stops, providing water, picnic tables, and sanitation facilities have been provided at 10-mile intervals.

The Antelope Valley also includes several major tourist attractions. The San Andreas fault which borders the

valley has been the cause of massive and unusual geologic formations at Devil's Punchbowl County Park, located in the San Gabriel Mountains south of Pearblossom, and Vasquez Rocks County Park. Visitors come to see these rock formations, which in the case of Vasquez Rocks, were formed about 25-40 million years ago by an earthquake, tilting about 700 acres of rocks upward as high as 200 feet. Both of these parks provide hiking, camping, picnicking and nature studies. Another tourist attraction is Saddleback Butte State Park, formerly Joshua Trees State Park, which attracted nearly 35,000 visitors during 1973-1974. Located east of Lancaster, the park derives its name from the 40-50 foot Joshua trees. Often mistaken for cactuses, these trees are actually members of the lily family.

In addition to these unusual park areas, fields of wild flowers, such as the California poppy and desert dandelion, attract visitors to the Valley's wildflower sanctuaries during the March to April blooming period. A Wildflower Center is also opened each spring in Lancaster. The center annually attracts 50,000-100,000 people to its wildflower, gem and mineral displays and community exhibits.

Tourists also come to Rosamond to see Burton's Tropic Gold Mine, which is a former gold mine now open to tours. In Lancaster, the Antelope Valley Fair is a major event that draws over 150,000 people during its annual five days.

Antelope Valley residents are also within close enough driving time to the Los Angeles metropolitan area to enjoy recreational opportunities at such places as Disneyland, Knotts Berry Farm, the Queen Mary, and many other southern California visitor attractions.





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